

Guide to South Carolina Marine Artificial Reefs



June, 2006

The Marine Resources Division of the South Carolina Department of Natural Resources (SCDNR) currently manages 45 manmade fishing reefs in estuarine and offshore waters of South Carolina. These reef sites are constructed from a variety of durable materials including specially designed concrete and steel structures, ships and tugboats, barges, even army tanks and subway cars. When durable materials such as these are placed in the marine environment their surfaces are rapidly colonized, and eventually completely covered, by a wide variety of sessile organisms including algae, barnacles, corals, sponges, hydroids, bryozoans, and marine worms. In time, these organisms become the foundation of the reef community and the base of the food web which is critical to later fishing success.



Other marine animals such as crabs, shrimp, starfish, sea urchins, amphipods, and mollusks, as well as thousands of juvenile fish, are also attracted to the structure for shelter and abundant food. Large fish of interest to recreational anglers are soon recruited to the reef in numbers usually equal to or exceeding those found on naturally occurring “live” bottom areas. These fish are attracted to the reef for a number of reasons including shelter, food, spawning, and the presence of a distinct physical orientation point in the otherwise flat, featureless environment. Many adult fish of interest to anglers occur on the reefs year-round, while others are only seasonal residents or short-term visitors.



Creation of artificial reefs off of South Carolina is especially important to the development of our marine fisheries resources because of the relative lack of naturally occurring hard-bottom areas along our coast. Off of South Carolina the majority of the continental shelf is covered with sand several feet deep while only about 5 to 10 percent of the bottom has the appropriate geological makeup to allow the formation of a reef community. This results in limited opportunities for anglers and divers to pursue their interests and leads to heavy utilization of some of the more well-known hard-bottom areas along the coast.

South Carolina's marine artificial reefs consist of multiple reef structures or concentrations of material deployed around a centrally placed yellow Nun buoy. Reef material is placed around the buoy, but not directly under it to discourage boaters from tying off to the buoy. To locate artificial reef materials, especially in offshore waters, anglers and divers need a depth finder and some means of electronic navigation such as a GPS.



A South Carolina Saltwater Recreational Fishing License is required for most individuals fishing on the State's marine artificial reefs other than those reefs adjacent to fishing piers. In addition, most of South Carolina's offshore artificial reefs are protected by federal regulations as Special Management Zones (SMZ's) which limits fishing gear to hand-held hook-and-line gear or spearfishing gear without powerheads.

Despite their apparent degree of productivity, artificial reefs do not represent a limitless resource which can be exploited at ever increasing rates without severe consequences. Most of these reef sites are relatively small and support a finite number of fish that can be harvested during any given season. They should be treated like any other natural resource, with common sense and a desire to conserve them for the future.

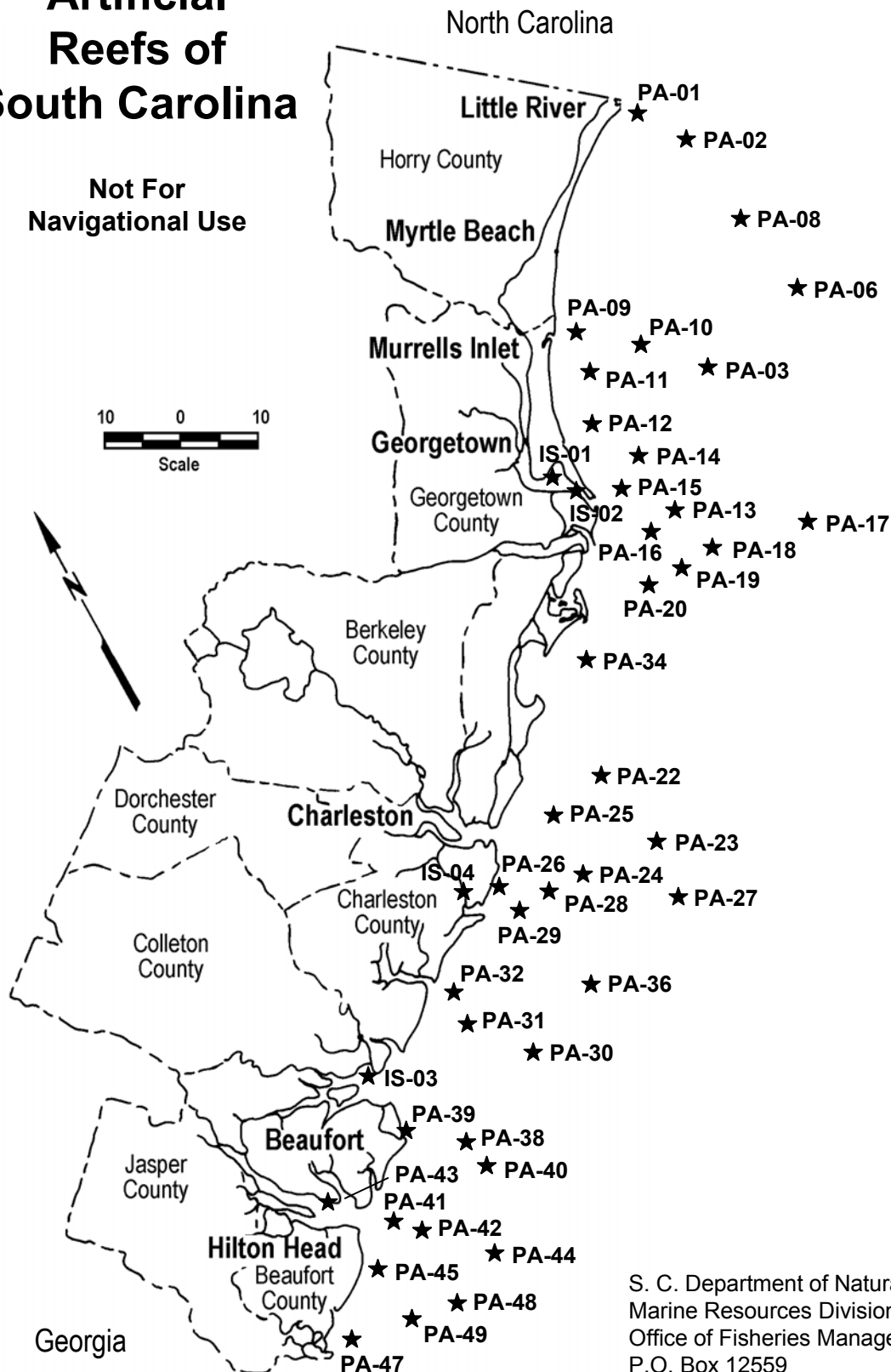


Many artificial reefs are constructed with the cooperation of organizations such as sportfishing and diving clubs, conservation organizations, other government agencies, or even private individuals. In recent years, the South Carolina Army National Guard has provided materials and services for numerous artificial reef construction activities all along the South Carolina coast. Individuals or organizations wishing to assist in supporting the development of artificial reefs off of South Carolina should contact the **Office of Fisheries Management at (843) 953-9303.**



Artificial Reefs of South Carolina

Not For
Navigational Use



S. C. Department of Natural Resources
Marine Resources Division
Office of Fisheries Management
P.O. Box 12559
Charleston, SC 29422-2559
(843) 953-9300



PA-01

1 buoy marks reef, bearing 125° / 2.7 nm from south jetty at Little River - water depth 30'

Reef	Structure	Latitude N	Longitude W
	1) Reef Buoy	33 48.812	078 30.514
Jim Caudle Reef	2) 80' Deck barge	33 48.895	078 30.646
	3) 80' Deck barge	33 49.014	078 30.269
	4) Bulk tanker	33 49.027	078 30.249
	5) 110' Deck barge	33 48.895	078 30.646
	6) 110' Deck barge	33 48.875	078 30.624
	7) Concrete rubble	33 48.925	078 30.500
	8) 110' Dredge barge (Orion)	33 48.884	078 30.624
	9) 100 Concrete cones	33 48.701	078 30.507
Little River Reef	10) 200 Concrete cones	33 48.800	078 30.495
	11) 175 Steel pup tents	33 48.515	078 30.069
	12) (8) 22' BK barges	33 48.835	078 30.506
	13) 55 TIC* units	33 48.829	078 30.578

* Tires In Concrete



78	30.8
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78	30.6
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78	30.4
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78	30.2
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PA-01

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33	49.0
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33	48.8
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11

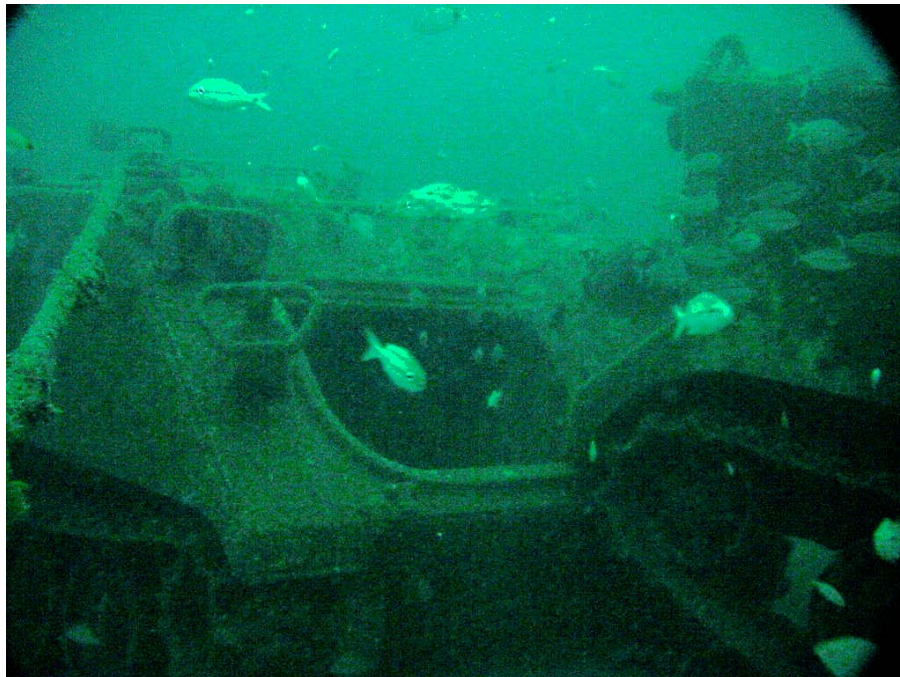
33	48.4
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PA-02

1 buoy marks reef, bearing 156° / 10.5 nm from Little River Inlet - water depth 60'

Reef	Structure	Latitude N	Longitude W
	1) Reef Buoy	33 41.957	078 26.639
Little River Offshore Reef	2) Landing craft	33 41.987	078 26.620
	3) Landing craft	33 41.796	078 26.963
	4) Concrete culvert pipe	33 41.754	078 26.955
	5) Concrete rubble	33 41.900	078 26.700
	6) Army APCs*	33 41.937	078 26.694
	7) Army APCs	33 41.947	078 26.721
Barracuda Alley	8) Army APCs	33 41.957	078 26.750
	9) 150' Dive barge	33 41.963	078 26.761
	10) 120' Deck barge	33 41.982	078 26.721

* Armored Personnel Carriers

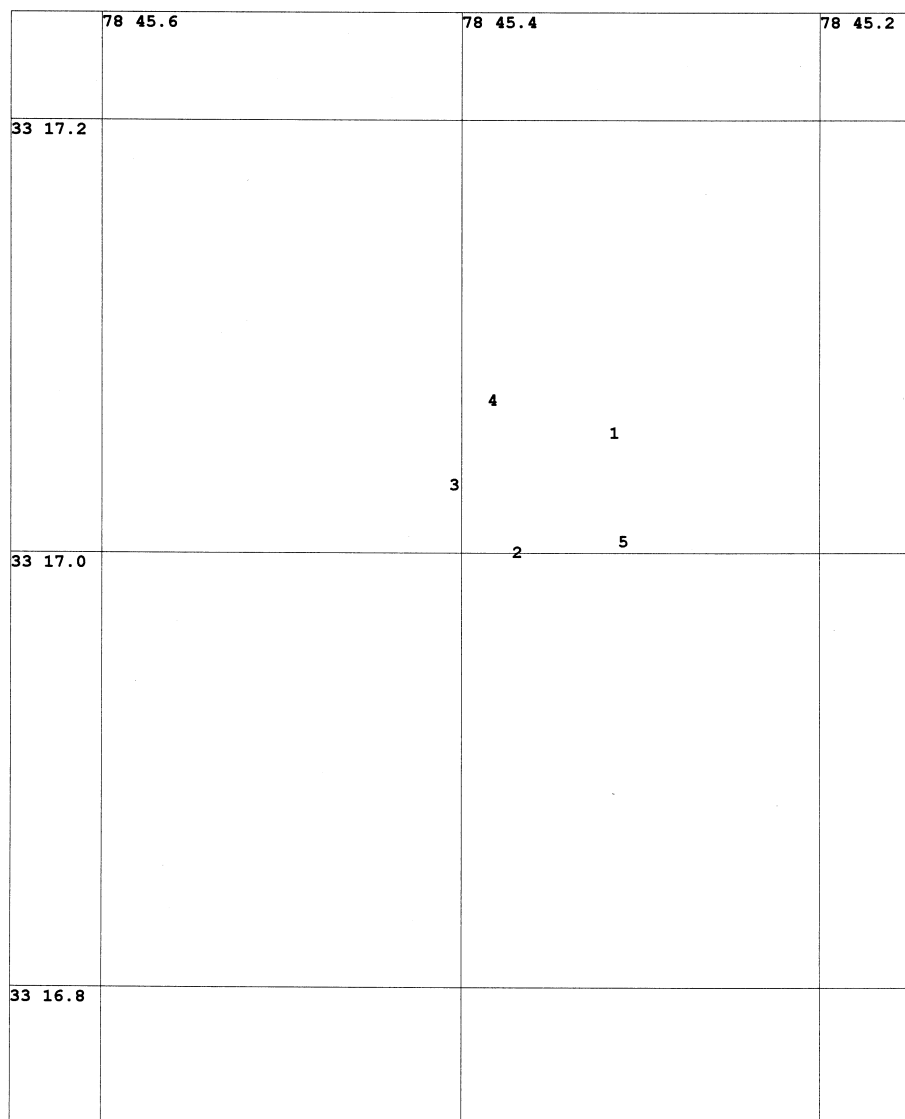


78 27.0	78 26.9	78 26.8	78 26.7	78 26.6
PA-02				
33 42.0		10 9 8 7	2 1 6	
33 41.9			5	
33 41.8 3				
4				
33 41.7				

PA-03

1 buoy marks reef, bearing 137° / 20 nm from south jetty at Murrels Inlet - water depth 60'

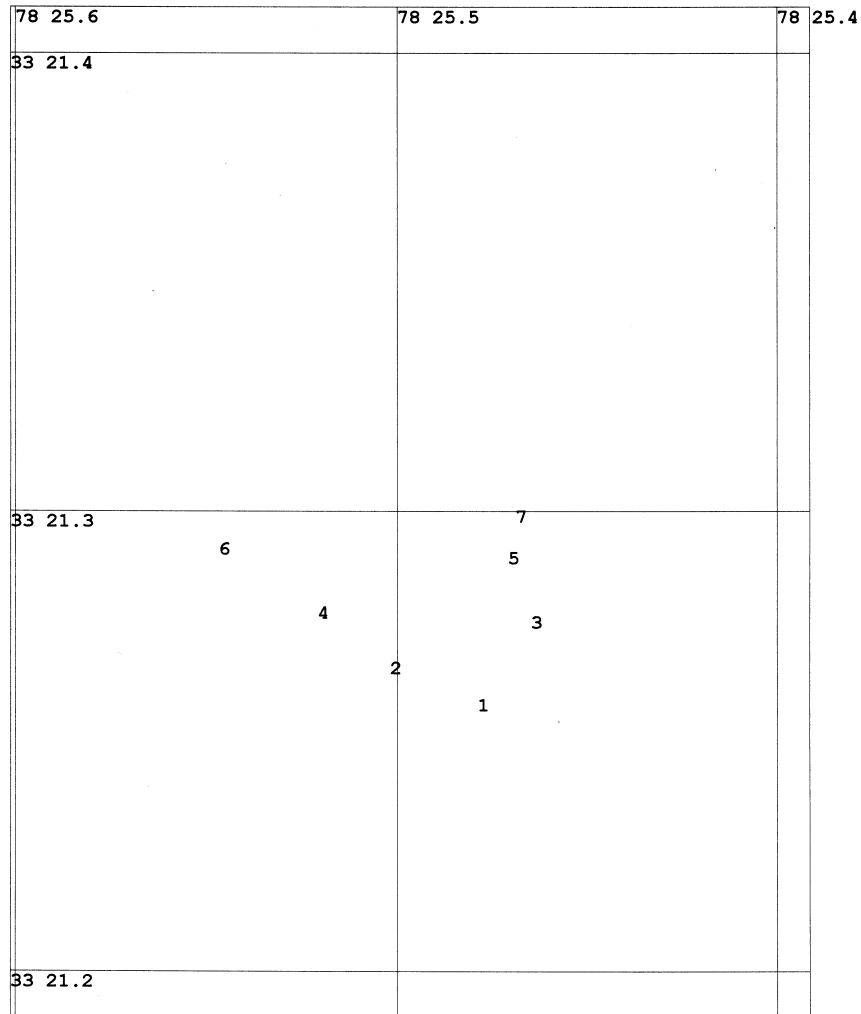
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	33 17.068	078 45.327
Will Goldfinch Reef	2) 175' Ship (YO-225)	33 17.005	078 45.372
	3) 120' Fuel Barge	33 17.036	078 45.407
	4) Concrete Zs	33 17.075	078 45.386
	5) Concrete Zs	33 17.010	078 45.313



PA-06

unmarked reef, bearing 173° / 29.5 nm from Little River Inlet buoy "2LR" or
113° / 31.5 nm from Murrells Inlet buoy "MI" - water depth 95'

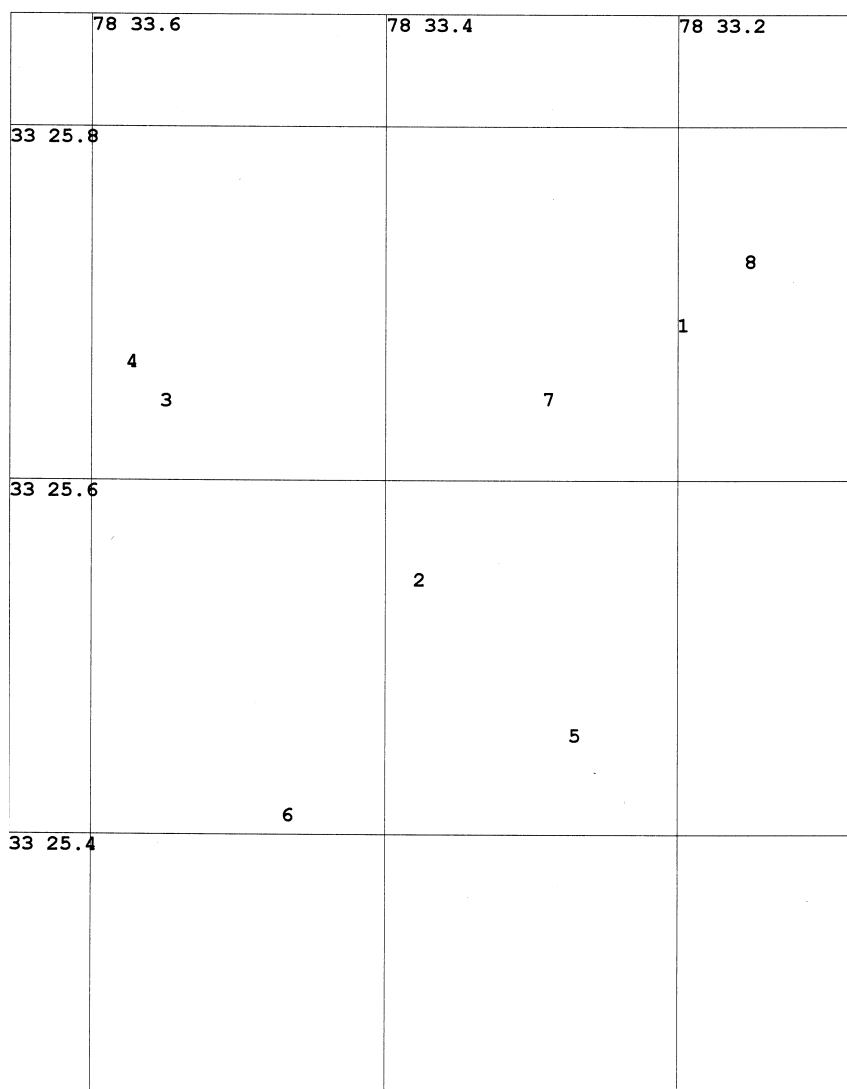
Reef	Structure	Latitude	Longitude
		N	W
BP-25 Reef	1) 160' Ship (BP-25)	33 21.260	078 25.479
	2) NYCT Subway Cars	33 21.268	078 25.502
	3) NYCT Subway Cars	33 21.278	078 25.465
	4) NYCT Subway Cars	33 21.280	078 25.521
	5) NYCT Subway Cars	33 21.292	078 25.471
	6) NYCT Subway Cars	33 21.294	078 25.547
	7) NYCT Subway Cars	33 21.301	078 25.469



PA-08

1 buoy marks reef, bearing 100° / 25 nm from Murrells Inlet buoy "MI" - water depth 65'

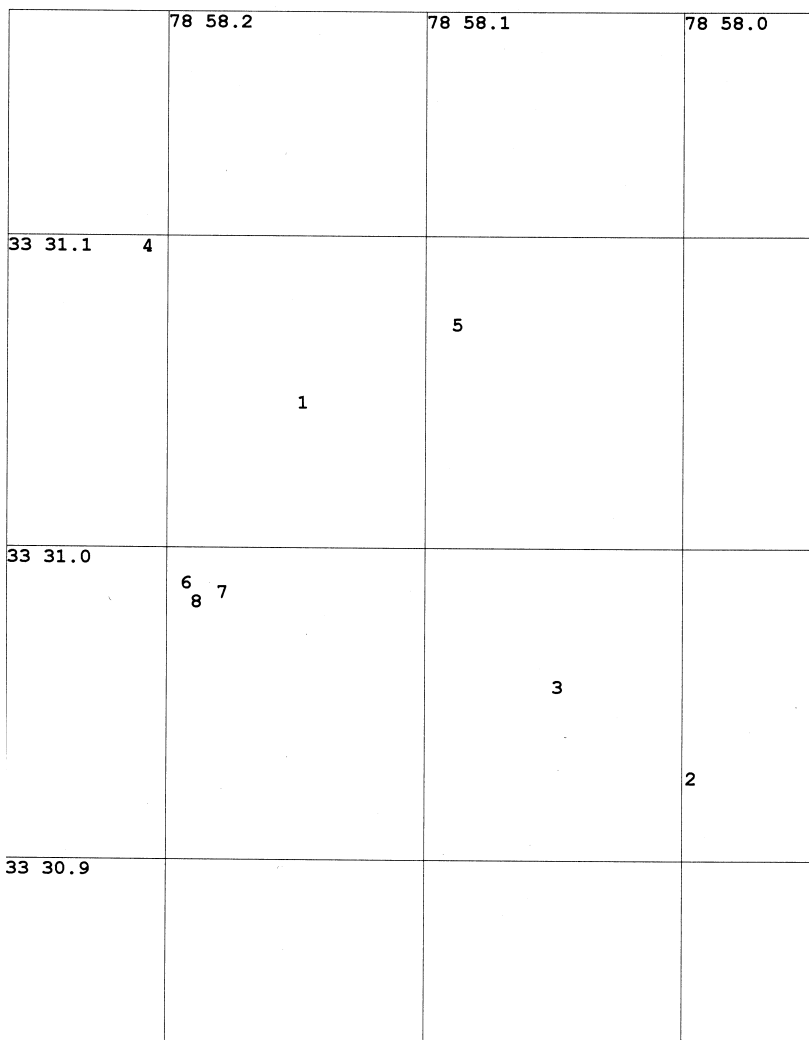
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	33 25.694	078 33.201
Bill Perry Jr Reef	2) 115' Landing craft	33 25.550	078 33.381
	3) 56' Landing craft	33 25.651	078 33.554
	4) 45' Shrimp boat	33 25.673	078 33.577
	5) 115' Landing craft	33 25.462	078 33.275
	6) 56' Landing craft	33 25.417	078 33.471
	7) 65' Tugboat	33 25.652	078 33.293
	8) 20 Shipping containers	33 25.730	078 33.155



PA-09

1 buoy marks reef, bearing 105° / 3.2 nm from south jetty at Murrells Inlet - water depth 35'

Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	33 31.071	078 58.140
Paradise Reef	2) Deck barge	33 30.930	078 57.999
	3) Concrete reef balls	33 30.959	078 58.051
	4) Army APCs	33 31.100	078 58.210
H.P. Springs Jr Reef	5) 100 Concrete cones	33 31.075	078 58.090
Grand Strand	6) Concrete cones & Zs	33 30.992	078 58.195
Saltwater Anglers Reef	7) Concrete cones & Zs	33 30.989	078 58.181
	8) Concrete cones & Zs	33 30.986	078 58.191



PA-10

2 buoys mark reef, bearing 130° / 9.5 nm from south jetty at Murrells Inlet - water depth 45'

Reef	Structure	Latitude	Longitude
		N	W
	1) NW Reef Buoy	33 26.261	078 52.706
	2) SE Reef Buoy	33 25.300	078 51.478
Bruce Rush Reef	3) 100 Concrete cones	33 26.097	078 52.663
	4) 65' Crew boat	33 26.007	078 52.663
	5) 78' Shrimp boat	33 25.917	078 52.456
Ten Mile Reef	6) Concrete reef balls	33 26.081	078 52.239
	7) Concrete reef balls	33 26.092	078 52.201
	8) 200' Deck barge	33 26.407	078 52.807
Eleven Mile Reef	9) Tugboat & Barge	33 25.389	078 51.609
	10) A-7 Airplane	33 25.387	078 51.605
	11) Shipping containers	33 25.364	078 51.991
	12) Shipping containers	33 25.320	078 51.962
	13) Shipping containers	33 25.356	078 52.033
	14) Shipping containers	33 25.266	078 52.107

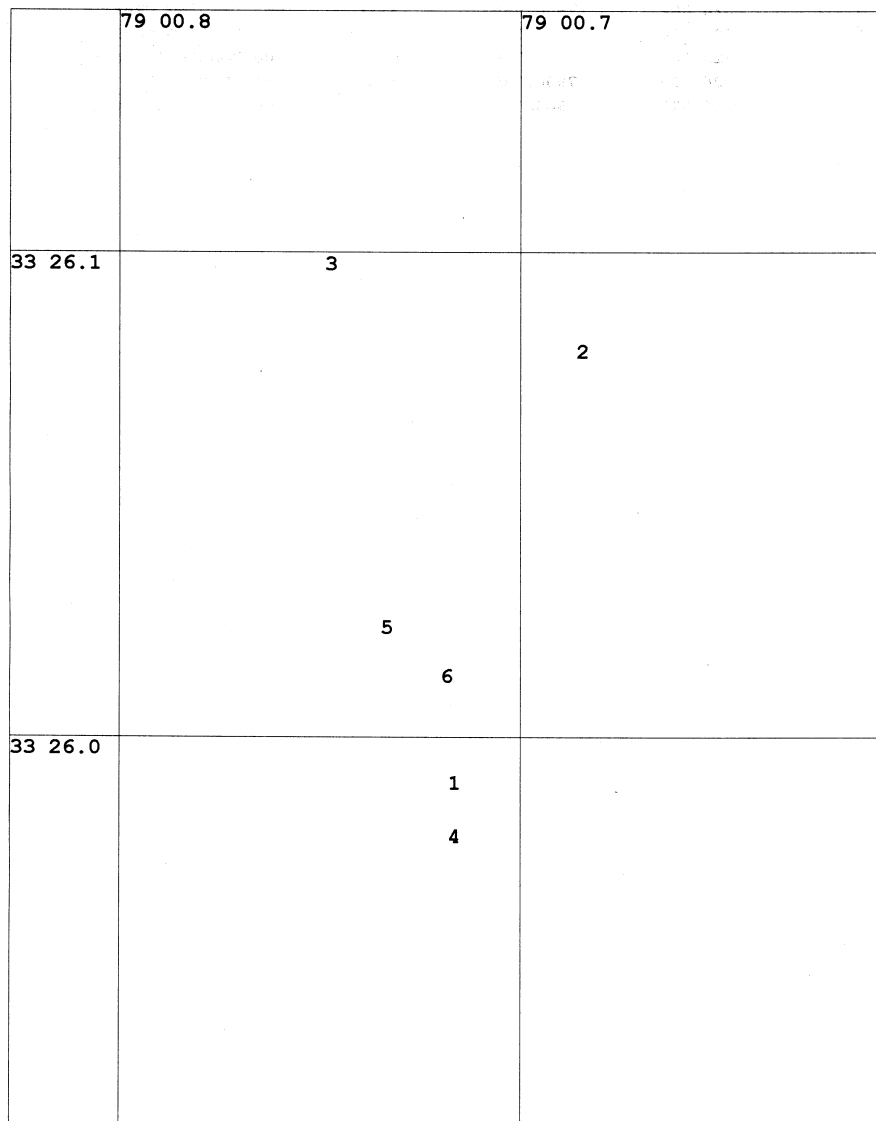


	78 53.0	78 52.5	78 52.0	78 51.5
	PA-10			
33 26.5	8 1 3	6 7		
33 26.0	4	5		
33 25.5		13 11 14 12	9 10	2
33 25.0				

PA-11

1 buoy marks reef, bearing 177° / 5.5 nm from south jetty at Murrells Inlet - water depth 35'

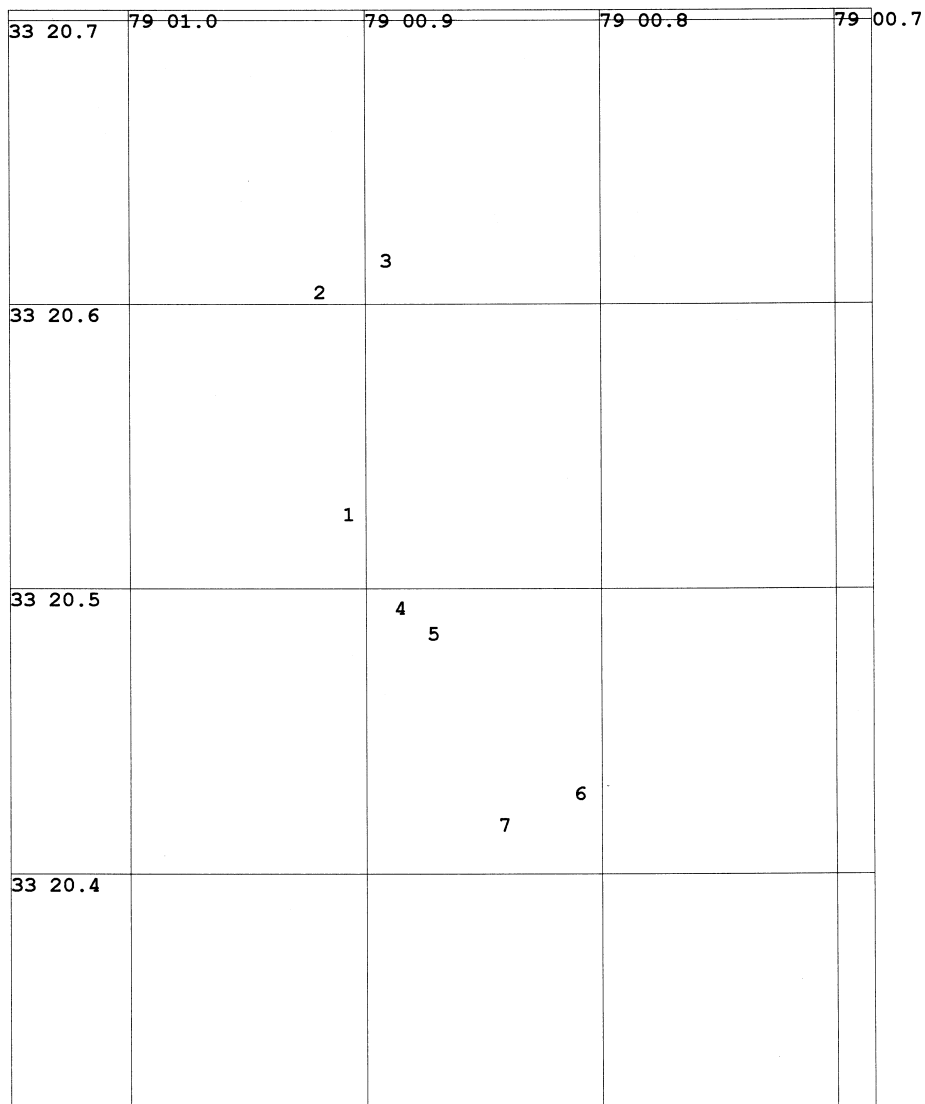
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	33 25.993	079 00.718
Pawley's Island Reef	2) 56' Landing craft	33 26.082	079 00.686
	3) 56' Landing craft	33 26.100	079 00.749
	4) 200 Concrete cones	33 25.982	079 00.718
Tommy Pierce Reef	5) 45' Tugboat	33 26.025	079 00.735
	6) 100 Concrete cones	33 26.015	079 00.720



PA-12

1 buoy marks reef, bearing 020° / 9.6 nm from Winyah Bay channel buoy "2WB" - water depth 45'

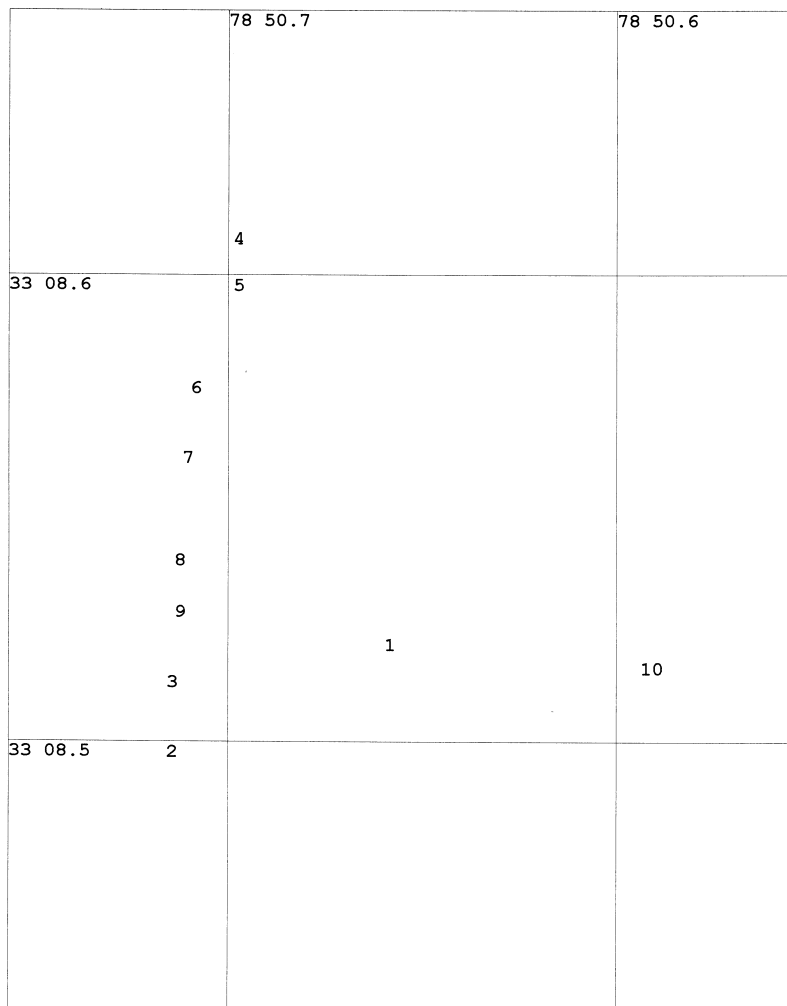
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	33 20.530	079 00.910
North Inlet Reef	2) 175 Steel pup tents	33 20.608	079 00.922
	3) 200 Concrete reef balls	33 20.619	079 00.894
	4) Shipping containers	30 20.497	079 00.888
	5) Shipping containers	33 20.488	079 00.874
	6) Shipping containers	33 20.432	079 00.812
	7) Shipping containers	33 20.421	079 00.844



PA-13

1 buoy marks reef, bearing 105° / 13 nm from Winyah Bay channel buoy "2WB" - water depth 60'

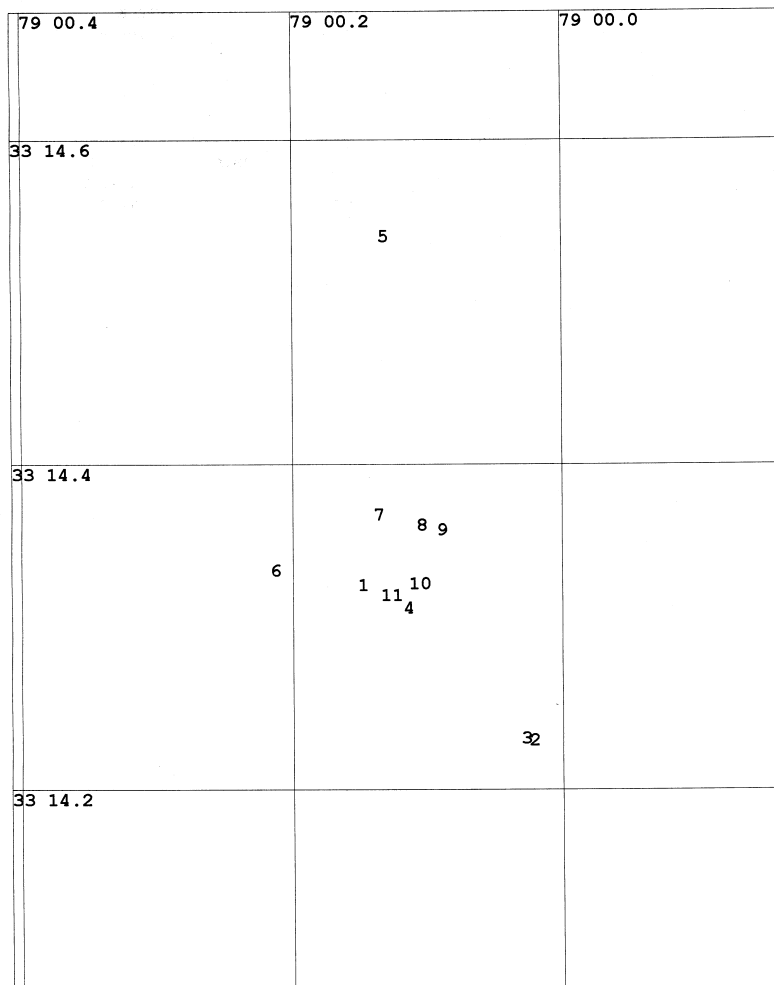
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	33 08.523	078 50.660
Wayne Upchurch Reef	2) Concrete cones	33 08.500	078 50.716
	3) Concrete cones	33 08.515	078 50.716
	4) Army APCs	33 08.610	078 50.699
	5) Army APCs	33 08.600	078 50.699
	6) Army APCs	33 08.578	078 50.710
	7) Army APCs	33 08.563	078 50.712
	8) Army APCs	33 08.541	078 50.714
	9) Army APCs	33 08.530	078 50.714
	10) 45' Tugboat	33 08.518	078 50.594



PA-14

1 buoy marks reef, bearing 074° / 7.6 nm from end of Winyah Bay jetty - water depth 40'

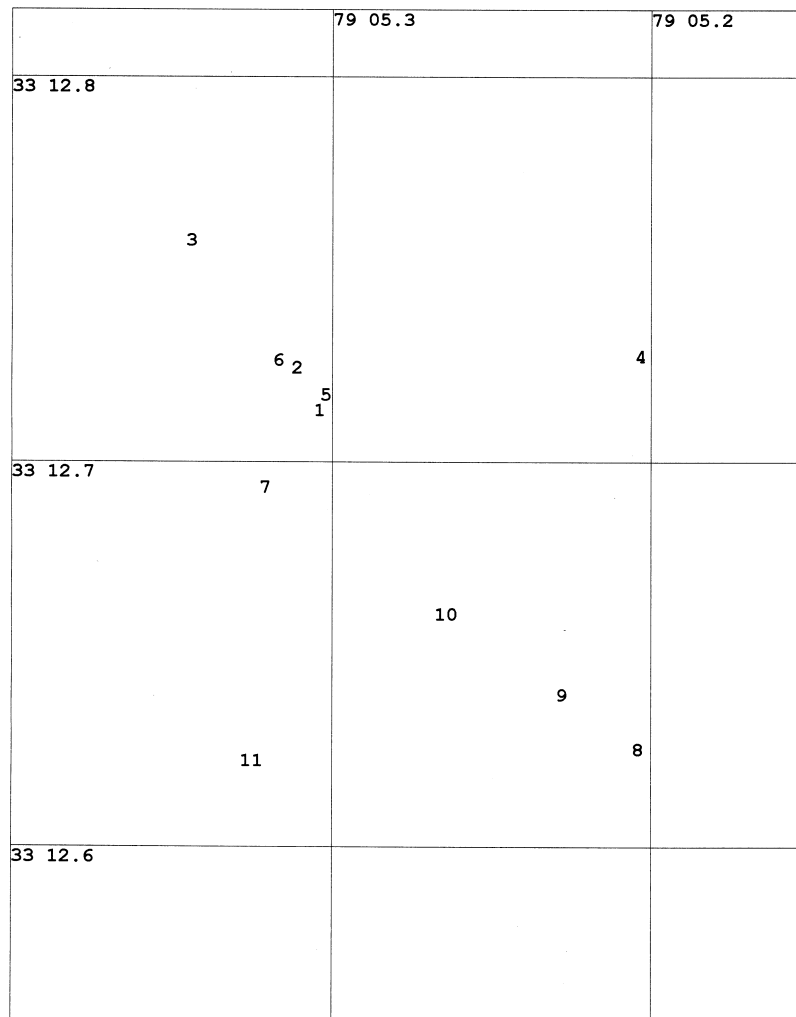
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	33 14.332	079 00.143
Georgetown Reef	2) 100' Shipwreck	33 14.237	079 00.025
	3) Steel structures	33 14.238	079 00.031
	4) Steel structures	33 14.318	079 00.118
	5) 100' Deck barge	33 14.547	079 00.136
	6) 56' Landing craft	33 14.341	079 00.217
	7) 200 Concrete cones	33 14.375	079 00.140
	8) Shipping containers	33 14.369	079 00.108
	9) Shipping containers	33 14.366	079 00.093
	10) Shipping containers	33 14.333	079 00.114
	11) Shipping containers	33 14.326	079 00.135



PA-15

1 buoy marks reef, bearing 065° / 2.7 nm from Winyah Bay south jetty mound - water depth 30'

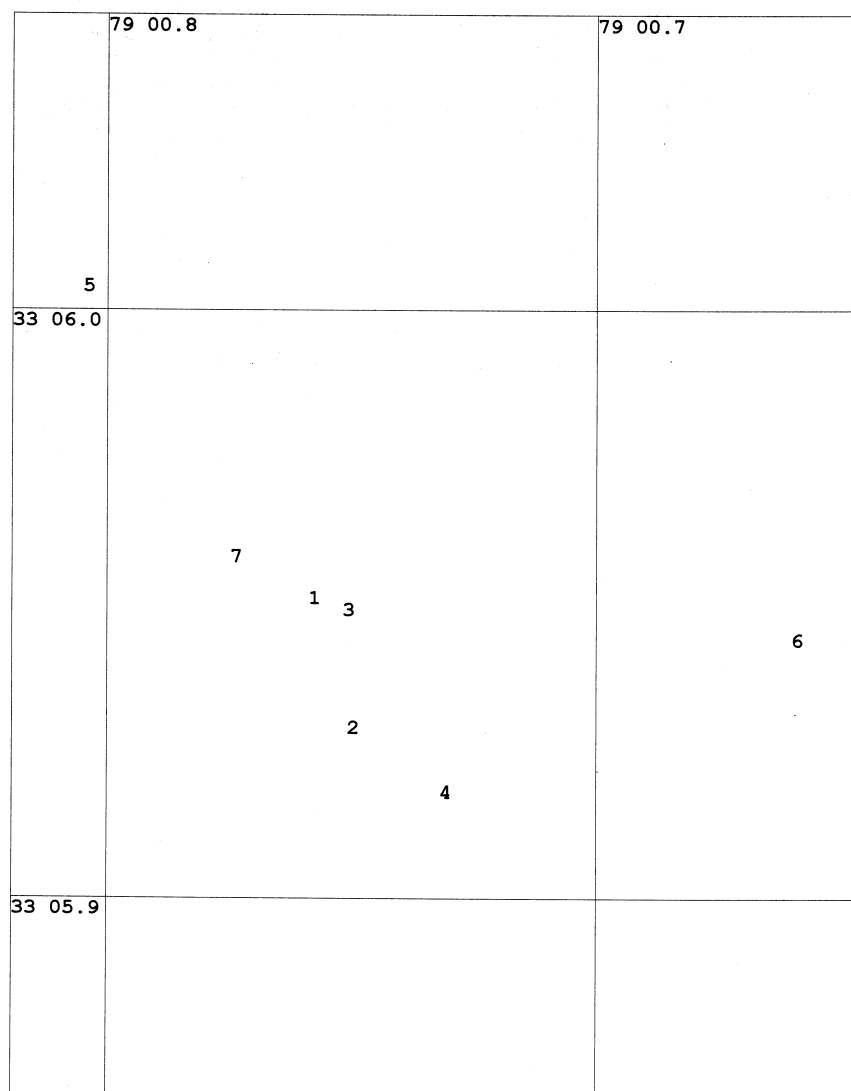
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	33 12.716	079 05.306
Georgetown	2) 130' Deck barge	33 12.727	079 05.313
Nearshore Reef	3) 62' Lash barge	33 12.760	079 05.346
	4) 62' Lash barge	33 12.730	079 05.205
Capt. Sam Crayton	5) Concrete cones	33 12.720	079 05.304
Reef	6) Concrete cones	33 12.729	079 05.319
	7) Concrete cones	33 12.696	079 05.323
	8) Concrete Zs	33 12.628	079 05.206
	9) Concrete Zs	33 12.642	079 05.230
	10) Concrete Zs	33 12.663	079 05.268
	11) 180' Deck barge	33 12.625	079 05.329



PA-16

1 buoy marks reef, bearing 147° / 6.5 nm from Winyah Bay channel buoy "2WB" - water depth 53'

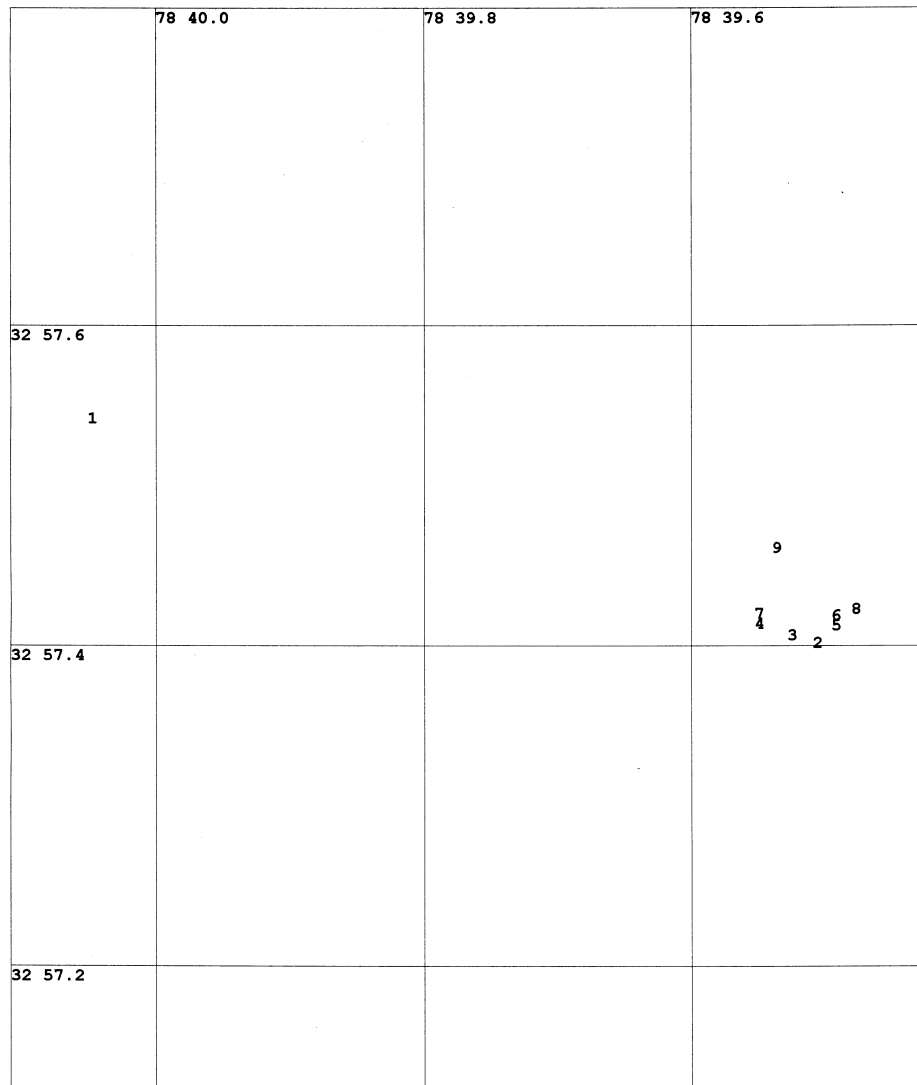
Reef	Structure	Latitude N	Longitude W
	1) Reef Buoy	33 05.953	079 00.759
C.J. Davidson Jr Reef	2) 140' Deck barge	33 05.931	079 00.751
	3) Steel & Tire units	33 05.951	079 00.752
	4) Steel & Tire units	33 05.920	079 00.732
	5) 200 Concrete reef balls	33 06.006	079 00.805
	6) 20 Army APCs	33 05.946	079 00.660
	7) 100 Concrete cones	33 05.960	079 00.775



PA-17

unmarked reef, bearing 117° / 27.5 nm from south jetty at Winyah Bay - water depth 120'

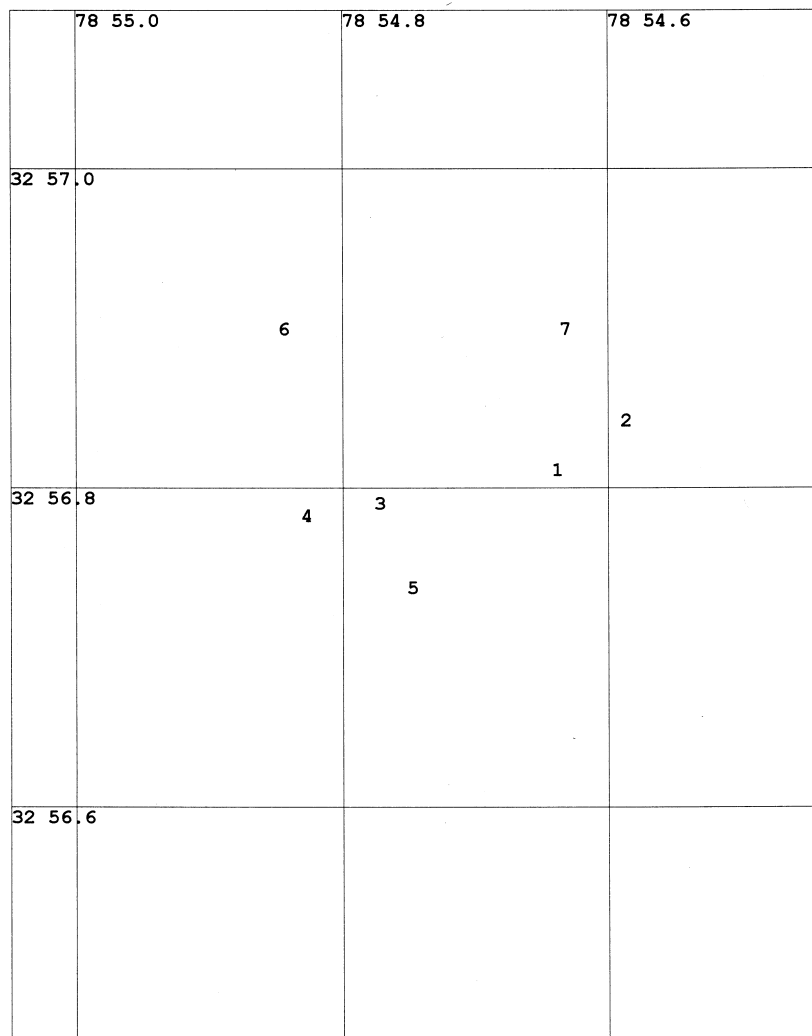
Reef	Structure	Latitude	Longitude
		N	W
Vermilion Reef	1) 460' Ship (Vermilion)	32 57.548	078 40.051
	2) NYCT Subway cars	32 57.408	078 39.509
	3) NYCT Subway cars	32 57.413	078 39.528
	4) NYCT Subway cars	32 57.420	078 39.553
	5) NYCT Subway cars	32 57.419	078 39.495
	6) NYCT Subway cars	32 57.425	078 39.495
	7) NYCT Subway cars	32 57.426	078 39.553
	8) NYCT Subway cars	32 57.429	078 39.480
	9) NYCT Subway cars	32 57.467	078 39.540



PA-18

unmarked reef, bearing 149° / 17.5 nm from Winyah Bay channel buoy "2WB" - water depth 85'

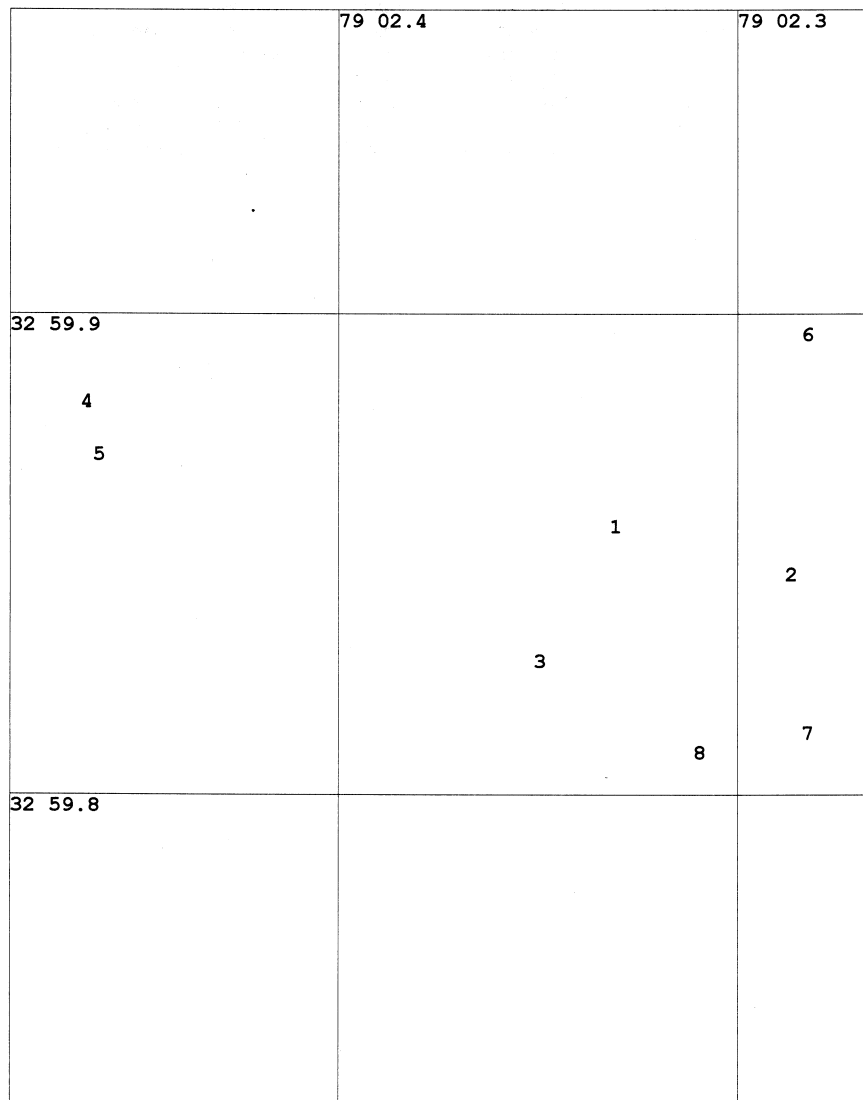
Reef	Structure	Latitude	Longitude
		N	W
Greenville Reef	1) 140' Deck barge	32 56.818	078 54.643
	2) Drydock units	32 56.849	078 54.591
	3) Drydock units	32 56.797	078 54.777
	4) Drydock units	32 56.789	078 54.832
	5) 130' Deck barge	32 56.744	078 54.752
	6) 175' Ship (YOG-78)	32 56.906	078 54.849
	7) 106' Fuel barge (YSR-38)	32 56.906	078 54.637
Ralph H Skelton Reef	8) 105' Tugboat (America)	32 56.623	078 57.587



PA-19

1 buoy marks reef, bearing 173° / 12 nm from Winyah Bay channel buoy "2WB" - water depth 65'

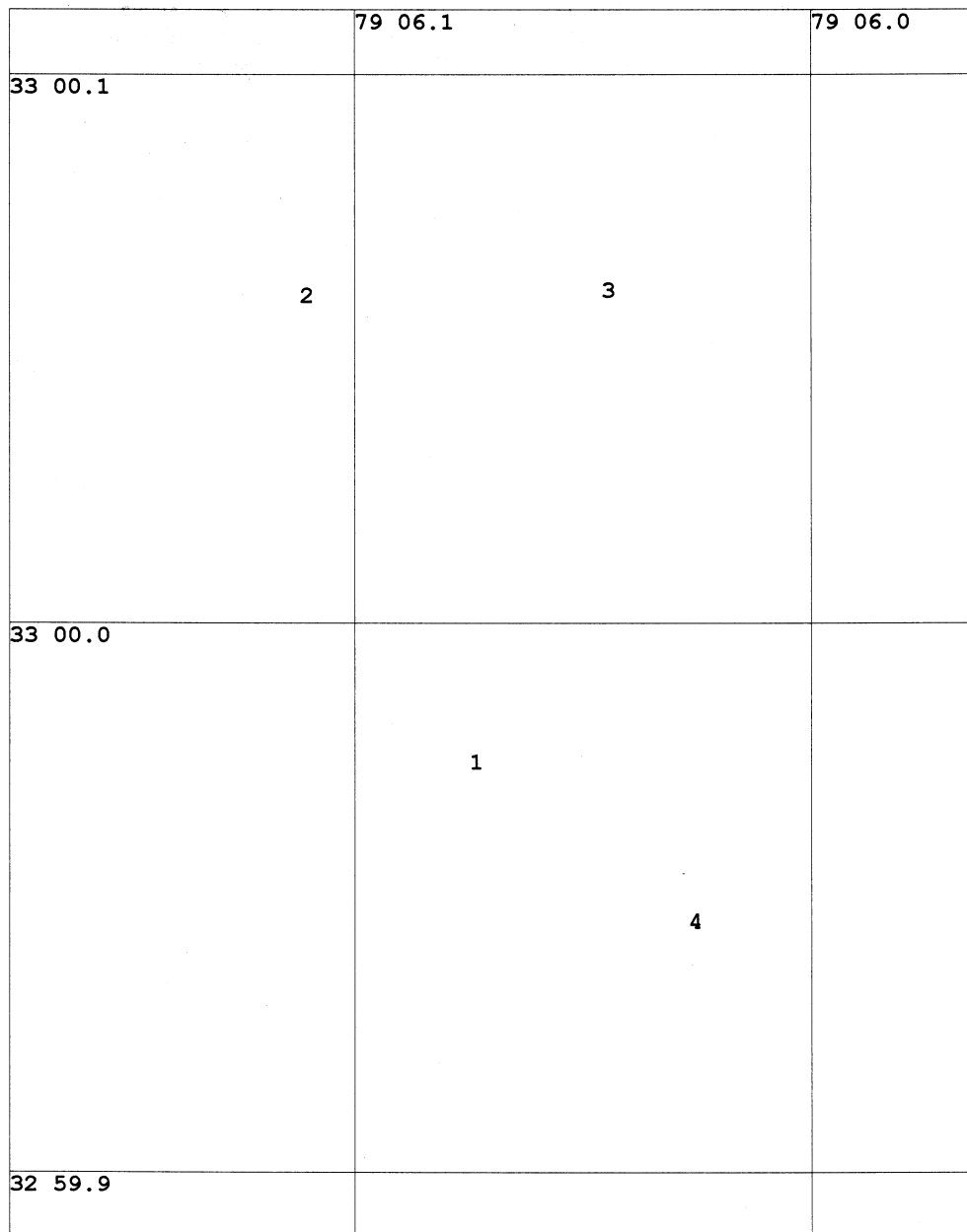
Reef	Structure	Latitude	Longitude
		N	W
Cape Romain Reef	1) Reef Buoy	32 59.858	079 02.332
	2) 100' Deck barge	32 59.848	079 02.288
	3) 65' Tugboat	32 59.830	079 02.351
	4) Army APCs	32 59.884	079 02.464
	5) Army APCs	32 59.873	079 02.461
	6) Concrete & steel rubble	32 59.898	079 02.284
	7) Concrete & steel rubble	32 59.815	079 02.284
	8) 90' Tugboat (Dolphin)	32 59.811	079 02.311



PA-20

marked by Coast Guard buoy "WR-4", bearing 176° / 11.7 nm from Winyah Bay channel buoy "2WB"
water depth 30'

Reef	Structure	Latitude N	Longitude W
Hector Reef	1) Hector wreck	32 59.977	079 06.075
	2) 22' BK Barges	33 00.062	079 06.112
	3) 56' Landing craft	33 00.063	079 06.046
	4) Deck barge	32 59.948	079 06.027



PA-22

1 state buoy and Coast Guard buoy "R8" mark reef, bearing 090° / 12.2 nm
from offshore end of Charleston jetties - water depth 45'

Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 44.990	079 34.517
	2) Coast Guard Buoy 'R8'	32 44.411	079 34.342
Capers Reef (R8)	3) Concrete reef balls	32 44.380	079 34.542
	4) Concrete reef balls	32 44.381	079 34.534
	5) 90' Tugboat	32 44.539	079 34.345
	6) 110' Deck barge	32 44.405	079 34.507
	7) Caisson	32 44.422	079 34.545
	8) 56' Landing craft	32 44.528	079 34.559
	9) 56' Landing craft	32 44.527	079 34.541
	10) 150' Deck barge	32 44.965	079 34.484
	11) Pipes and cubes	32 44.935	079 34.572
	12) Pipes and cubes	32 44.936	079 34.551
	13) 120' Deck barge	32 45.087	079 34.486
	14) 65' Tugboat	32 44.655	079 34.399
	15) 120' Deck barge	32 44.528	079 34.624
	16) 56' Deck barge	32 44.764	079 34.590
	18) Cooper River Bridge rubble	32 44.850	079 34.350
	17) Cooper River Bridge rubble	32 44.873	079 34.226

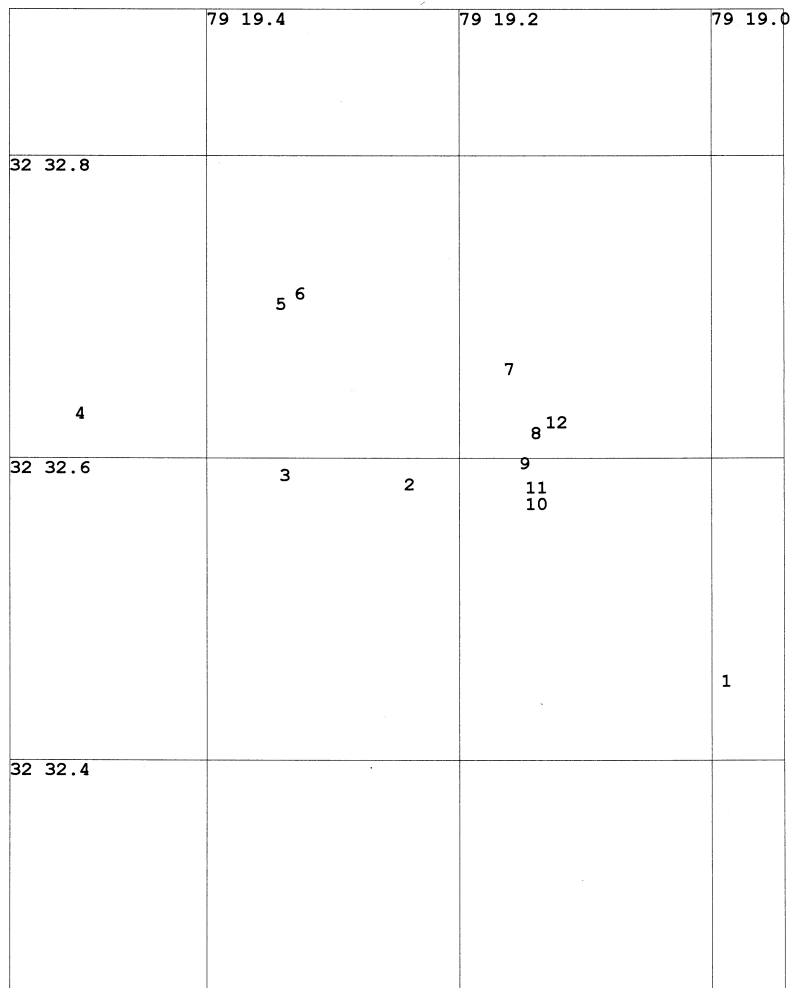


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32 44.6				14			
32 44.4			15 89	5			
32 44.2			7 6 34	2			
32 44.0			PA-22				

PA-23

unmarked reef, bearing 114° / 27 nm from Charleston Harbor south jetty - water depth 95'

Reef	Structure	Latitude	Longitude
		N	W
Y-73 Reef	1) 180' Tanker (Y-73)	32 32.459	079 18.993
	2) 90' Tugboat (Helen)	32 32.589	079 19.244
	3) 90' Tugboat (Tanda 9)	32 32.595	079 19.343
	4) 90' Tugboat (Kimberly)	32 32.636	079 19.504
	5) Steel pyramids	32 32.708	079 19.346
	6) Steel pyramids	32 32.715	079 19.331
	7) Shipping containers	32 32.665	079 19.165
	8) Shipping containers	32 32.623	079 19.144
	9) Shipping containers	32 32.603	079 19.153
	10) Shipping containers	32 32.576	079 19.148
	11) Shipping containers	32 32.587	079 19.148
	12) Shipping containers	32 32.630	079 19.132



PA-24

1 buoy marks reef, bearing 145° / 12.5 nm from Charleston Harbor south jetty - water depth 60'

Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 33.147	079 40.249
Charleston 60' Reef	2) 130 Concrete reef balls	32 33.251	079 40.451
	3) Equipment sections	32 33.079	079 40.233
	4) Steel pyramids	32 33.148	079 40.396
	5) Steel pyramids	32 33.117	079 40.403
	6) Steel pyramids	32 33.100	079 40.415
	7) 240' Deck barge	32 33.354	079 40.299
	8) Missile sleeves	32 33.317	079 40.399
	9) Army APCs	32 33.138	079 40.095
	10) Army APCs	32 33.127	079 40.101
	11) Army APCs	32 33.147	079 40.080
	12) Army APCs	32 33.160	079 40.063
	13) Army APCs	32 33.165	079 40.055
	14) 110' Deck barge	32 33.001	079 40.056
	15) Steel oil tank	32 33.272	079 40.226
	16) Steel oil tank	32 33.297	079 40.270
	17) Steel oil tank	32 33.324	079 40.247
	18) 120' Deck barge	32 33.066	079 40.317
	19) Steel cable reels	32 33.167	079 40.227
	20) Cooper River Bridge rubble	32 32.985	079 40.385
	21) Cooper River Bridge rubble	32 32.966	079 40.374
	22) Cooper River Bridge rubble	32 32.979	079 40.329
	23) Cooper River Bridge rubble	32 32.960	079 40.346
	24) Cooper River Bridge rubble	32 32.950	079 40.316
Little Joe Shuford Memorial Reef	25) 100 Concrete cones	32 33.250	079 40.100
	26) Memorial Plaque	32 33.225	079 40.160



	79 40.6	79 40.4	79 40.2	79 40.0
		PA-24		
32	33.4	<div>7</div> <div>8</div> <div>17</div> <div>16</div> <div>15</div> <div>2</div> <div>25</div> <div>26</div>		
32	33.2	<div>4</div> <div>5</div> <div>6</div> <div>1</div> <div>19</div> <div>18</div> <div>3</div> <div>9</div> <div>10</div> <div>11</div> <div>12</div> <div>13</div>		
32	33.0	<div>20</div> <div>21</div> <div>22</div> <div>23</div> <div>24</div> <div>14</div>		
32	32.8			

PA-25

1 buoy marks reef, bearing 120° / 2.5 nm from Charleston Harbor north jetty - water depth 30'

Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 42.615	079 45.688
Charleston Nearshore Reef	2) 130' Deck barge	32 42.567	079 45.603
	3) (4) 20' BK barges	32 42.655	079 45.626
	4) Concrete rubble	32 42.536	079 45.610
	5) Missile ballast cans	32 42.637	079 45.576
	6) Missile ballast cans	32 42.636	079 45.587
	7) Missile motor cradles	32 42.590	079 45.700
	8) 105' Deck barge	32 42.571	079 45.608
	9) 100' Deck barge	32 42.574	079 45.600
	10) Cooper River Bridge rubble	32 42.694	079 45.750
	11) Cooper River Bridge rubble	32 42.660	079 45.621
	12) Cooper River Bridge rubble	32 42.565	079 45.710
	13) Cooper River Bridge rubble	32 42.565	079 45.740
Air Force Reef	14) CAFB runway rubble	32 42.606	079 45.649
	15) CAFB runway rubble	32 42.597	079 45.647
	16) CAFB runway rubble	32 42.573	079 45.620
	17) CAFB runway rubble	32 42.567	079 45.647
Charleston Coastal Anglers Reef	18) 130' Deck barge	32 42.630	079 45.735
	19) Concrete pyramids	32 42.632	079 45.716
	20) Concrete pyramids	32 42.617	079 45.736
Charleston Community Reef	21) Concrete reef balls	32 42.628	079 45.657

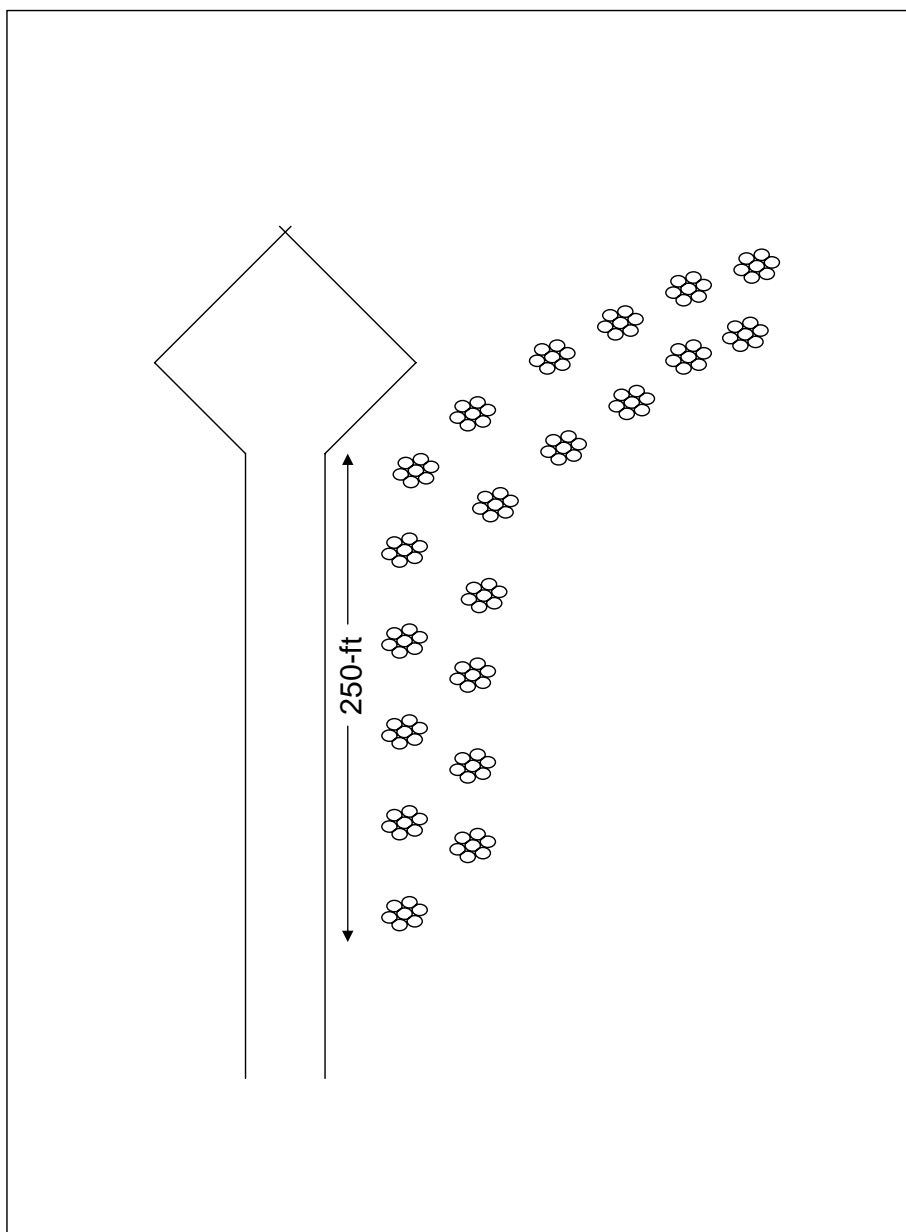


	79 45.8	79 45.7	79 45.6
	PA-25		
32	42.7		
	10		
		11	
		3	
	18 19	21	6 5
	20	1	
		14	
32	42.6	15	
		7	
	13 12	17	16 9
			8 2
			4
32	42.5		

PA-26

unmarked reef, located along south side of Folly Beach Fishing Pier - water depth 14 - 20'

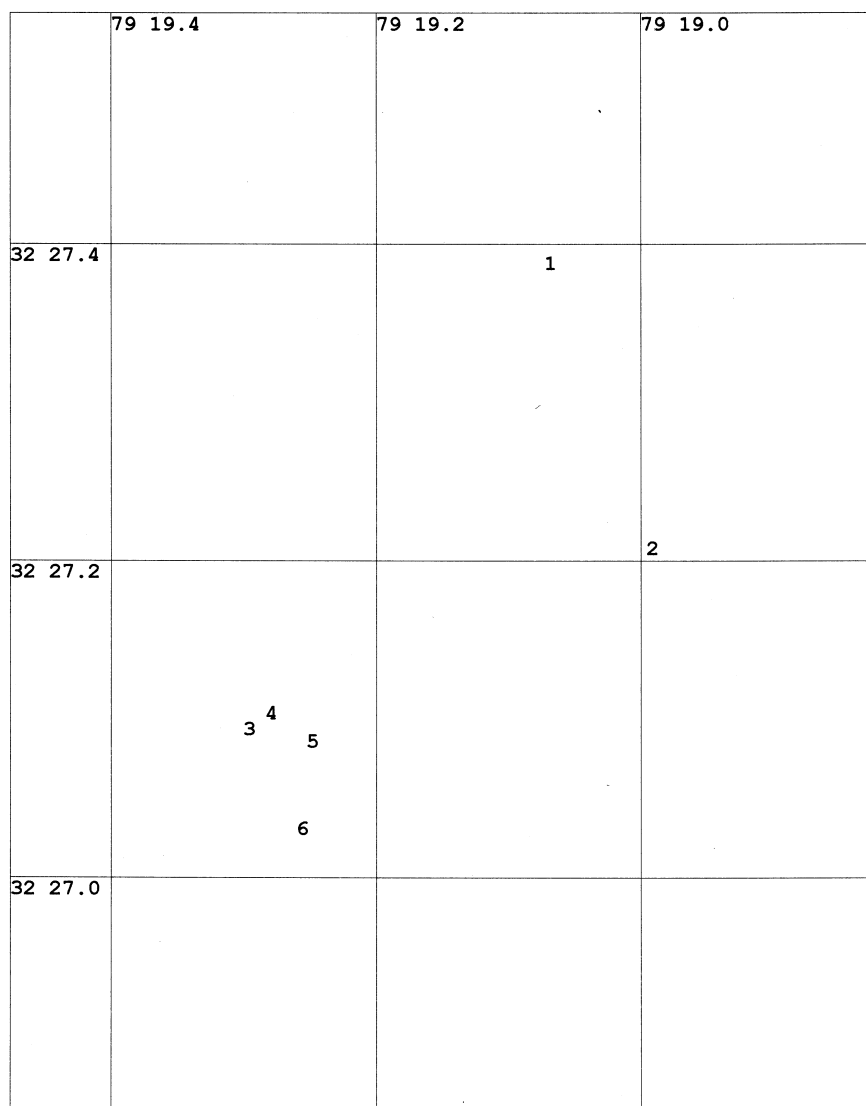
Reef	Structure
Folly Beach Fishing Pier Reef	200 Concrete reef balls, arranged in 20 clusters of 10 reef balls each



PA-27

unmarked reef, bearing 135° / 22.5 nm from Charleston Harbor channel buoy 'C' - water depth 105'

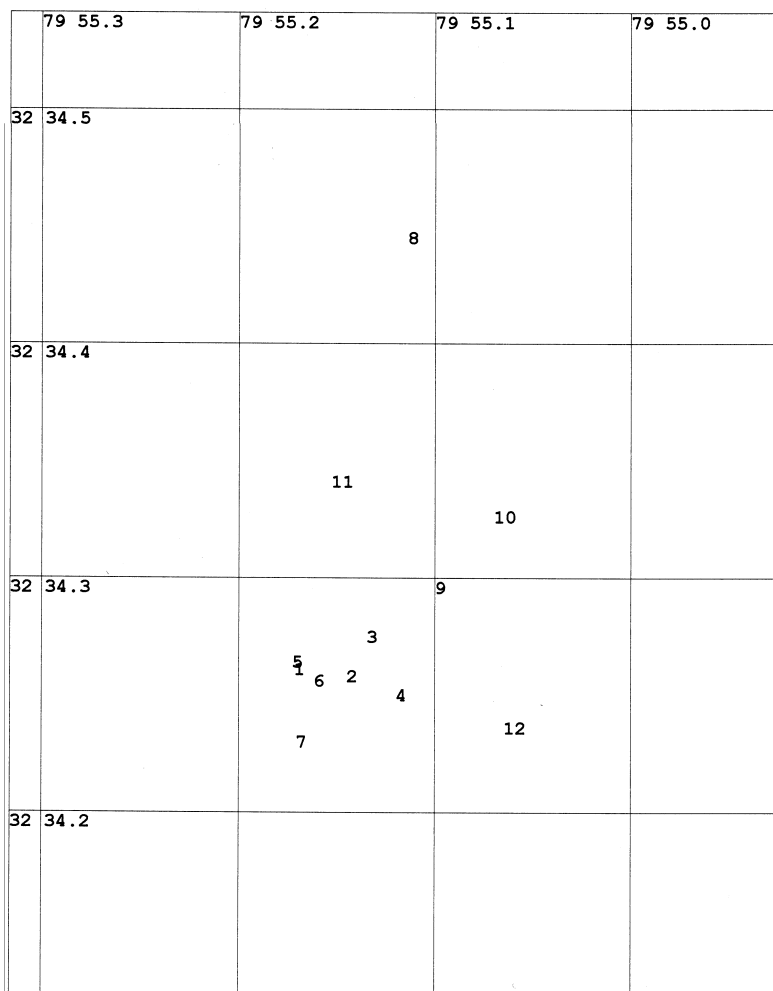
Reef	Structure	Latitude	Longitude
		N	W
Comanche Reef	1) 165' Ship (Comanche)	32 27.395	079 19.073
	2) 105' Tug (Anne Richards)	32 27.215	079 18.996
Doug Mellichamp Jr Reef	3) NYCT Subway cars	32 27.101	079 19.301
	4) NYCT Subway cars	32 27.111	079 19.284
	5) NYCT Subway cars	32 27.093	079 19.253
	6) NYCT Subway cars	32 27.038	079 19.261



PA-28

1 buoy marks reef, bearing 131° / 2.4 nm from Stono Inlet buoy '1S' - water depth 40'

Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 34.265	079 55.172
Lowcountry Anglers' Reef	2) Concrete pyramids	32 34.262	079 55.145
	3) Concrete pyramids	32 34.279	079 55.135
	4) Concrete pyramids	32 34.254	079 55.120
	5) CAFB runway rubble	32 34.268	079 55.173
	6) CAFB runway rubble	32 34.260	079 55.162
	7) CAFB runway rubble	32 34.234	079 55.171
	8) 50' Houseboat	32 34.449	079 55.114
	9) CPW concrete	32 34.300	079 55.100
	10) Limehouse bridge rubble	32 34.330	079 55.070
	11) Cooper River Bridge rubble	32 34.345	079 55.153
	12) Cooper River Bridge rubble	32 34.240	079 55.065



PA-29

2 buoys mark reef, bearing 115° / 6.5 nm from North Edisto channel buoy '2NE' - water depth 40'

Reef	Structure	Latitude	Longitude
		N	W
	1) North Buoy	32 29.451	080 00.058
	2) South Buoy	32 28.842	080 00.433
Kiawah Reef (4KI)	3) 300' Hopper barge	32 29.531	080 00.243
	4) 260' Deck barge	32 29.436	080 00.243
	5) 62' Lash barge	32 29.159	080 00.262
	6) 150' Drydock	32 28.858	080 00.402
	7) 100' Deck barge	32 28.790	080 00.402
	8) 100' Pusher tug	32 28.771	080 00.373
	9) 90' Tug (Coppedge)	32 28.858	080 00.301
	10) 200' Deck barge	32 28.749	080 00.104
	11) 110' and 120' barges	32 28.778	080 00.556
	12) 100 Concrete cones	32 29.350	080 00.060
	13) 437' Ship hull (Robison)	32 29.271	080 00.074
	14) Limehouse Bridge rubble	32 29.022	079 59.960
	15) 310' Deck barge	32 29.453	079 59.742
	16) Cooper River Bridge Rubble	32 29.350	079 59.900
	17) Cooper River Bridge Rubble	32 28.781	079 59.917

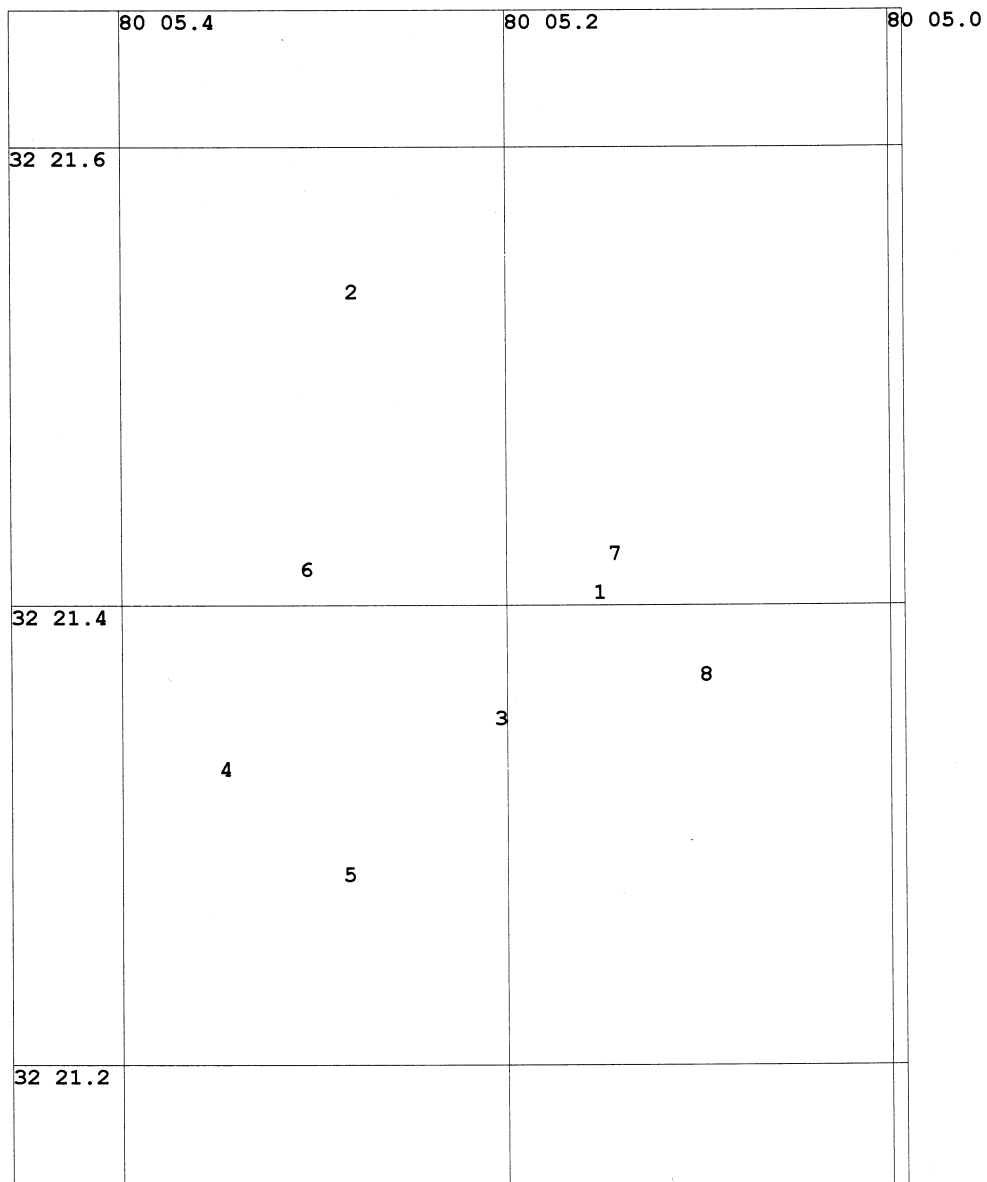


	80 00.5	80 00.0	79 59.5
	PA-29		
	3		
32 29.5	4 1	15	
	12	16	
	13		
	5		
32 29.0		14	
	2 6 9		
11	7 8	17	
	10		
32 28.5			

PA-30

1 buoy marks reef, bearing 167° / 10.5 nm from North Edisto channel buoy '2NE' - water depth 65'

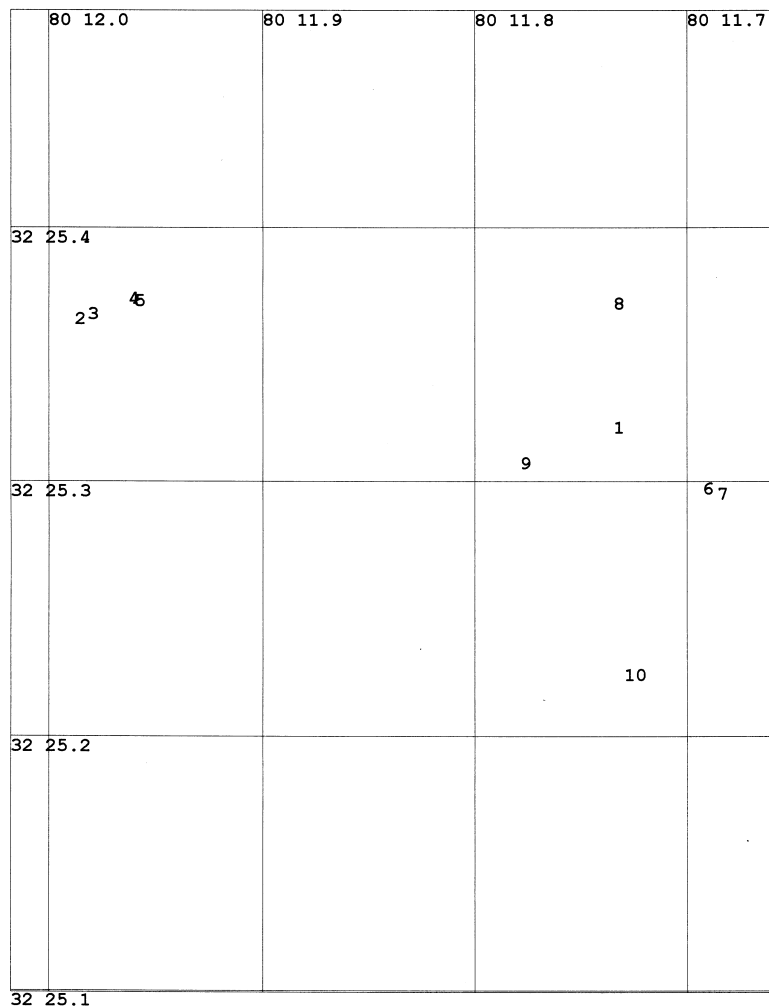
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 21.411	080 05.155
Edisto 60' Reef	2) 330' Ship (Page)	32 21.542	080 05.284
	3) Bridge section	32 21.356	080 05.207
	4) Bridge section	32 21.334	080 05.350
	5) Bridge section	32 21.288	080 05.286
	6) Steel yarn racks	32 21.428	080 05.147
	7) 264' Ship (YDT-16)	32 21.421	080 05.308
	8) 20 Shipping containers	32 21.375	080 05.100



PA-31

1 buoy marks reef, bearing 209° / 6.5 nm from North Edisto channel buoy '2NE' - water depth 45'

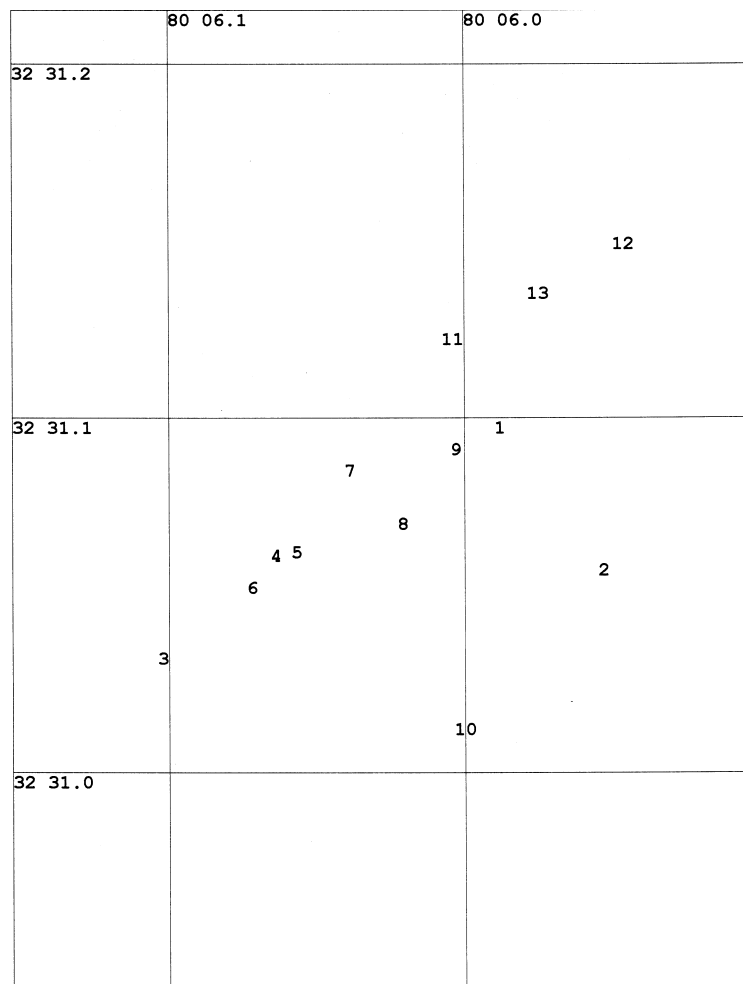
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 25.318	080 11.734
Edisto 40' Reef	2) Army APCs	32 25.368	080 11.988
	3) Army APCs	32 25.370	080 11.982
	4) Army APCs	32 25.376	080 11.963
	5) Army APCs	32 25.375	080 11.960
	6) Concrete rubble	32 25.301	080 11.693
	7) Concrete rubble	32 25.299	080 11.686
	8) 200 Concrete reef balls	32 25.374	080 11.735
	9) Concrete culvert pipe	32 25.311	080 11.779
	10) Limehouse Bridge rubble	32 25.228	080 11.730



PA-32

1 buoy marks reef, bearing 090° / 1.5 nm from North Edisto channel buoy '2NE' - water depth 30'

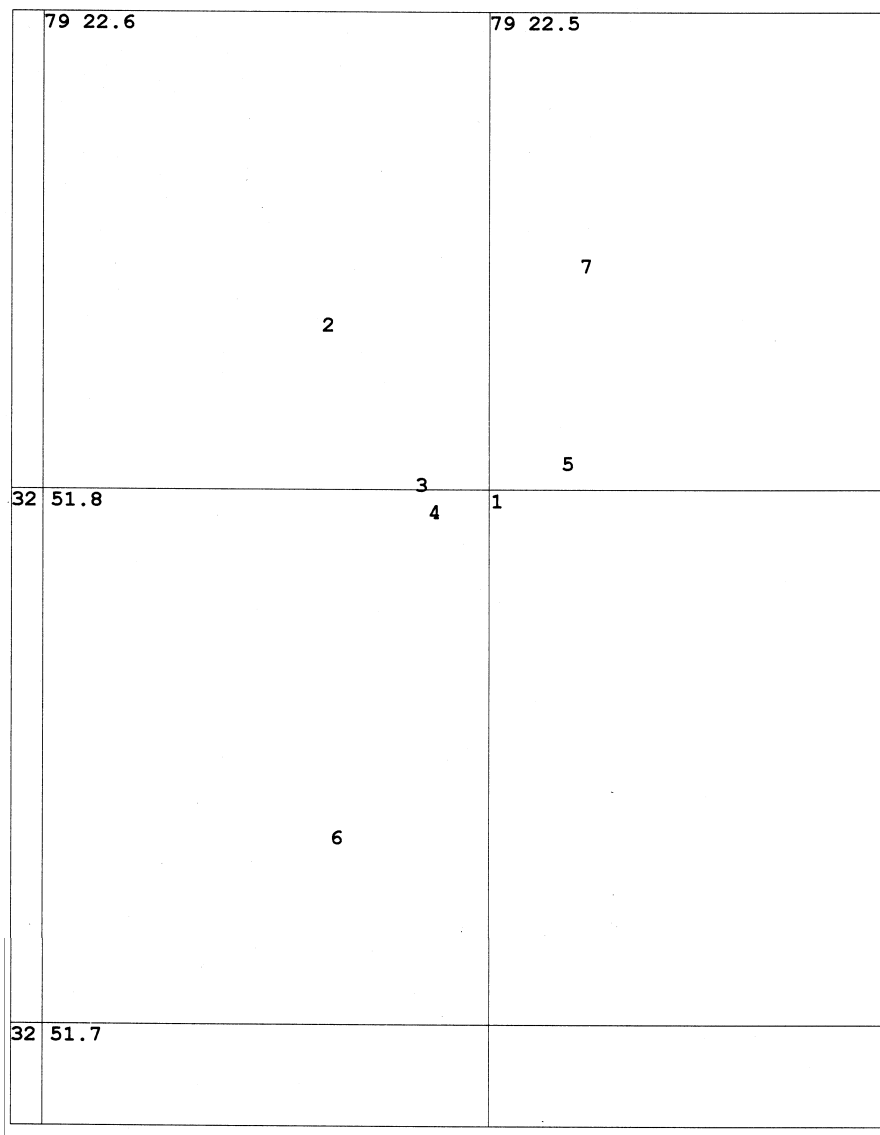
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 31.100	080 06.001
N. Edisto Nearshore Reef	2) 150' Deck barge	32 31.060	080 05.955
	3) 110' Deck barge	32 31.035	080 06.104
	4) Concrete pyramids	32 31.064	080 06.066
	5) Concrete pyramids	32 31.065	080 06.059
	6) Concrete pyramids	32 31.055	080 06.074
	7) 3 Army tanks	32 31.088	080 06.041
	8) Shipping containers	32 31.073	080 06.023
	9) Shipping containers	32 31.094	080 06.005
	10) Concrete rubble	32 31.015	080 06.004
	11) Limehouse Bridge rubble	32 31.125	080 06.008
	12) Limehouse Bridge rubble	32 31.152	080 05.950
	13) Limehouse Bridge rubble	32 31.138	080 05.979



PA-34

1 buoy marks reef, bearing 138° / 9 nm from Sandy Point channel buoy R"2" - water depth 47'

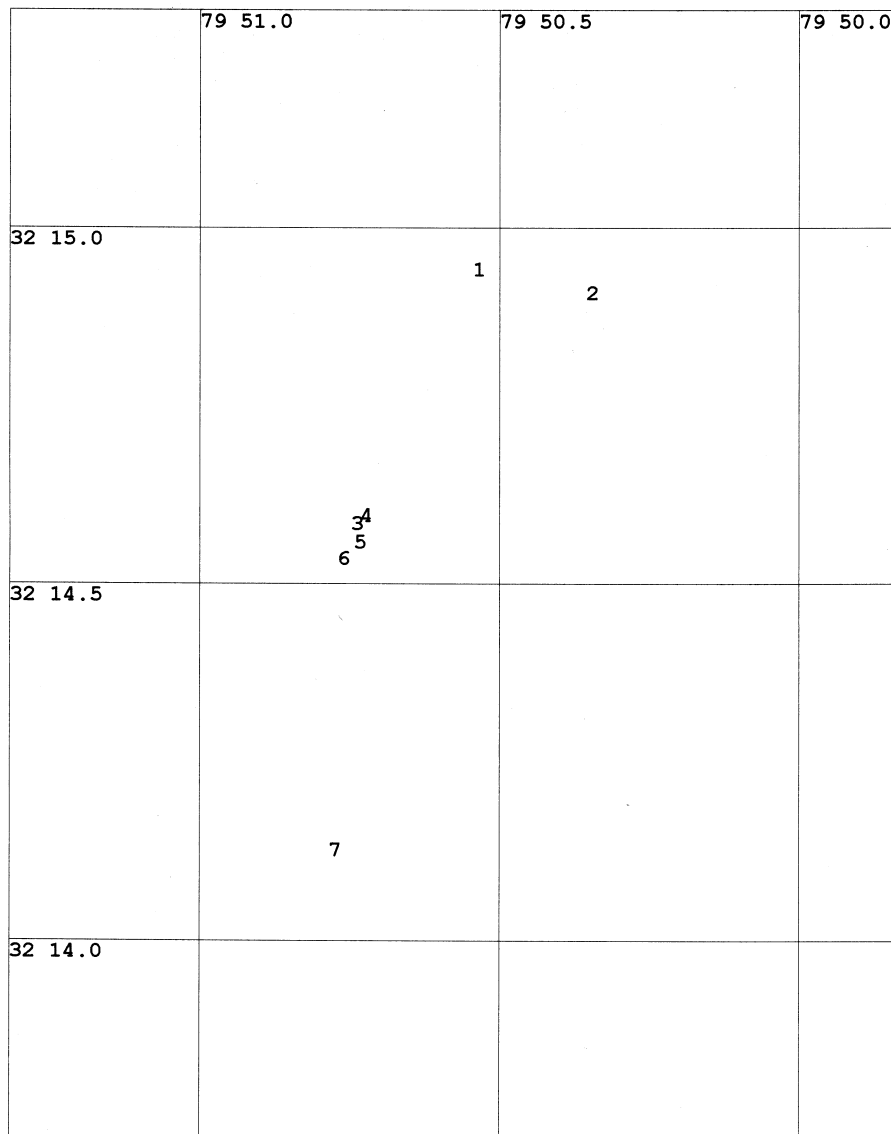
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 51.800	079 22.500
CCA-McClellanville Reef	2) Concrete & steel rubble	32 51.833	079 22.538
	3) Concrete & steel rubble	32 51.803	079 22.517
	4) Concrete & steel rubble	32 51.798	079 22.514
	5) 105' Tugboat	32 51.807	079 22.484
	6) Cooper River Bridge rubble	32 51.737	079 22.536
Jimmy Leland Reef	7) 45' Tugboat	32 51.844	079 22.480



PA-36

unmarked reef, bearing 141° / 21.5 nm from North Edisto channel buoy '2NE' - water depth 80'

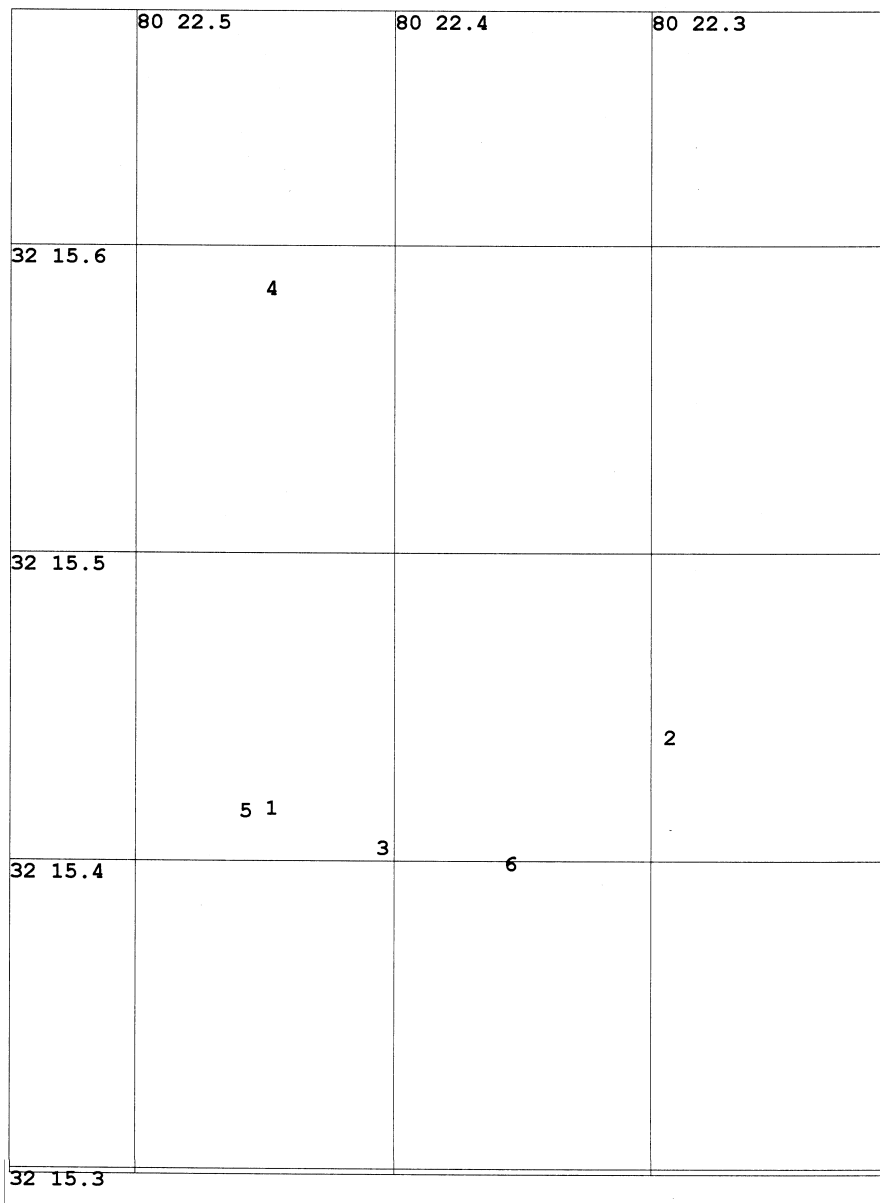
Reef	Structure	Latitude	Longitude
		N	W
Edisto Offshore Reef	1) 145' ship (Researcher)	32 14.958	079 50.545
	2) 65' Barge deckhouse	32 14.925	079 50.355
	3) Shipping containers	32 14.601	079 50.748
	4) Shipping containers	32 14.612	079 50.733
	5) Shipping containers	32 14.575	079 50.743
	6) Shipping containers	32 14.552	079 50.771
	7) 90' Tugboat (Waban)	32 14.144	079 50.785



PA-38

1 buoy marks reef, bearing 140° / 5.8 nm from Fripp Inlet - water depth 45'

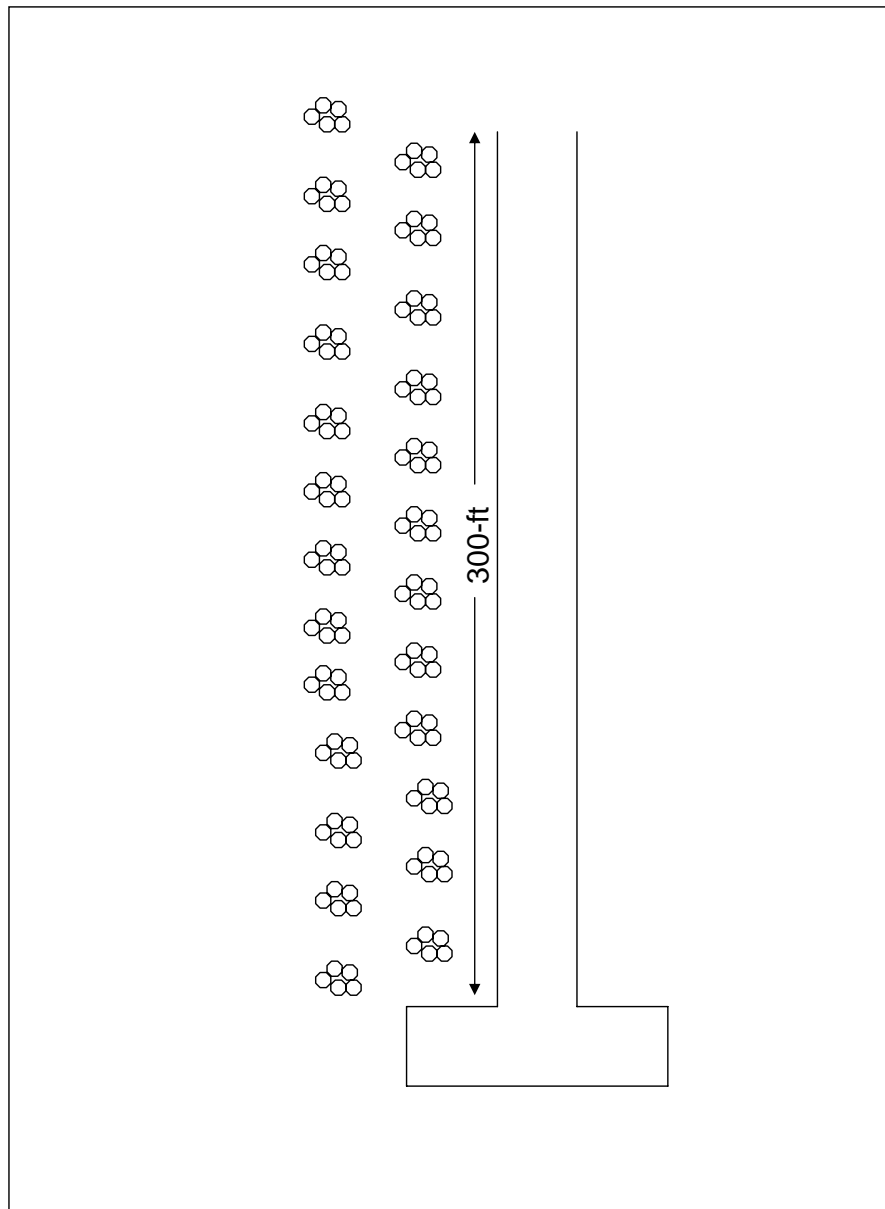
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 15.421	080 22.450
Fripp Island Reef	2) 200 Concrete reef balls	32 15.444	080 22.295
	3) 100' Deck barge	32 15.408	080 22.407
	4) 40' Deck barge	32 15.590	080 22.450
	5) 100 Concrete Zs	32 15.420	080 22.460
	6) 120' Deck barge	32 15.403	080 22.357



PA-39

unmarked reef, located adjacent to the Hunting Island State Park Fishing Pier - water depth 18 - 28'

Reef	Structure
Hunting Island State Park Fishing Pier Reef	125 Concrete cones, arranged in 25 clusters of 5 cones each



PA-40

1 buoy marks reef, bearing 144° / 8.5 nm from Fripp Inlet - water depth 50'

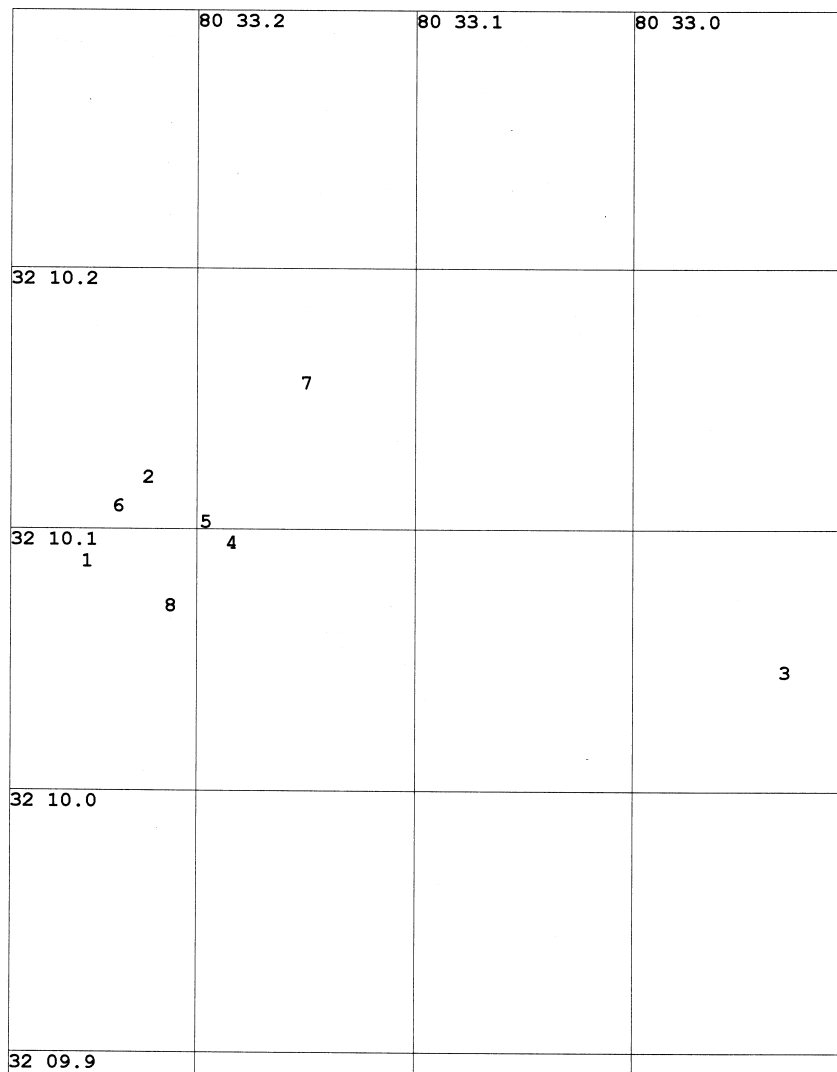
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 13.055	080 20.494
Hunting Island Reef (6HI)	2) 200' Hopper barge	32 12.920	080 20.360
	3) 56' Landing craft	32 13.120	080 20.499
	4) 56' Landing craft	32 13.120	080 20.497
	5) 200 Concrete cones	32 13.040	080 20.440
	6) Shipping containers	32 12.993	080 20.542
	7) Shipping containers	32 12.990	080 20.508
	8) Shipping containers	32 13.010	080 20.552
	9) Shipping containers	32 13.034	080 20.488
	10) Shipping containers	32 12.961	080 20.588
	11) Shipping containers	32 12.931	080 20.571

	80 20.6	80 20.5	80 20.4	80 20.3
32 13.2				
		34		
32 13.1		1 9	5	
	8			
32 13.0	6	7		
	10			
	11			
			2	
32 12.9				

PA-41

1 buoy marks reef, bearing 093° / 2.2 nm from Port Royal channel buoy '14' - water depth 18'

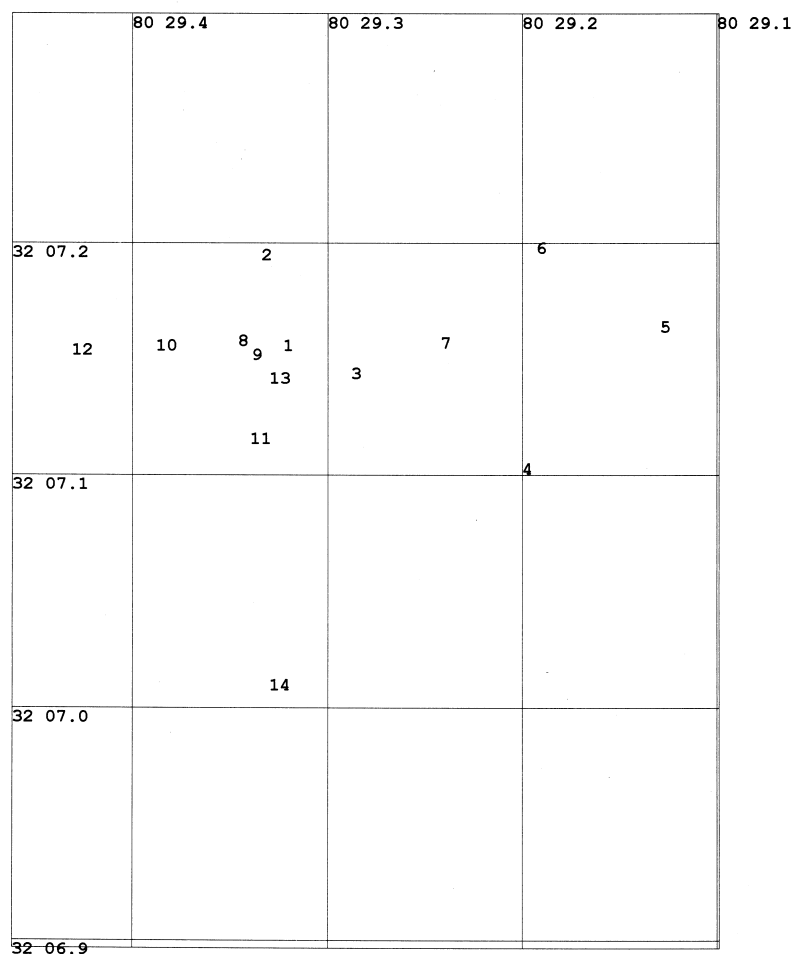
Reef	Structure	Latitude N	Longitude W
	1) Reef Buoy	32 10.092	080 33.253
General Gordon Reef	2) General Gordon wreck	32 10.124	080 33.225
	3) 40' Deck barge	32 10.050	080 32.933
	4) Concrete Zs	32 10.099	080 33.187
	5) Concrete Zs	32 10.107	080 33.199
	6) Concrete Zs	32 10.113	080 33.239
	7) Broad River Bridge rubble	32 10.160	080 33.153
	8) Concrete culvert pipe	32 10.075	080 33.215



PA-42

1 buoy marks reef, bearing 123° / 5.8 nm from Port Royal channel buoy '14' - water depth 45'

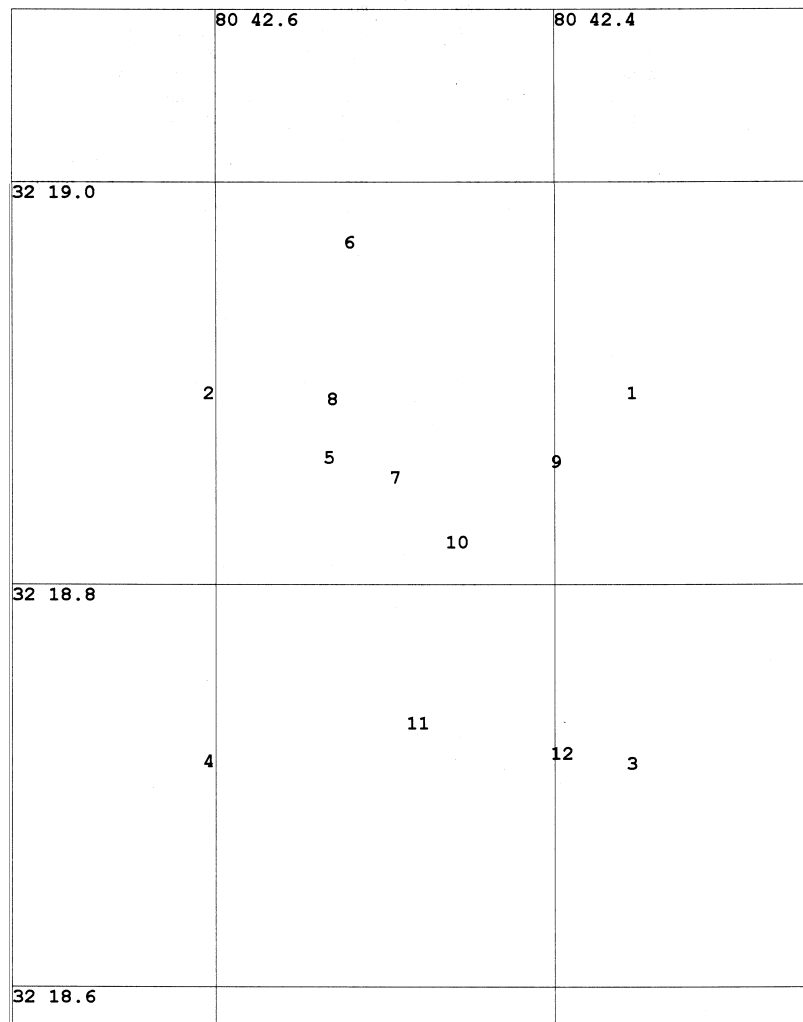
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 07.160	080 29.323
Beaufort 45' Reef	2) 200 Concrete reef balls	32 07.199	080 29.334
	3) Army tanks and APCs	32 07.148	080 29.288
	4) Army tanks and APCs	32 07.107	080 29.200
	5) Army tanks and APCs	32 07.168	080 29.129
	6) Army tanks and APCs	32 07.202	080 29.193
	7) Army tanks and APCs	32 07.161	080 29.242
	8) Concrete Zs	32 07.162	080 29.346
	9) Concrete Zs	32 07.156	080 29.339
	10) 106' Fuel barge	32 07.160	080 29.388
	11) Concrete culvert pipe	32 07.120	080 29.340
	12) Broad River bridge rubble	32 07.158	080 29.431
	13) Broad River bridge rubble	32 07.146	080 29.330
	14) Broad River bridge rubble	32 07.014	080 29.330



PA-43

4 buoys mark reef, located in Broad River between Parris Island and Daws Island - water depth 15' - 35'

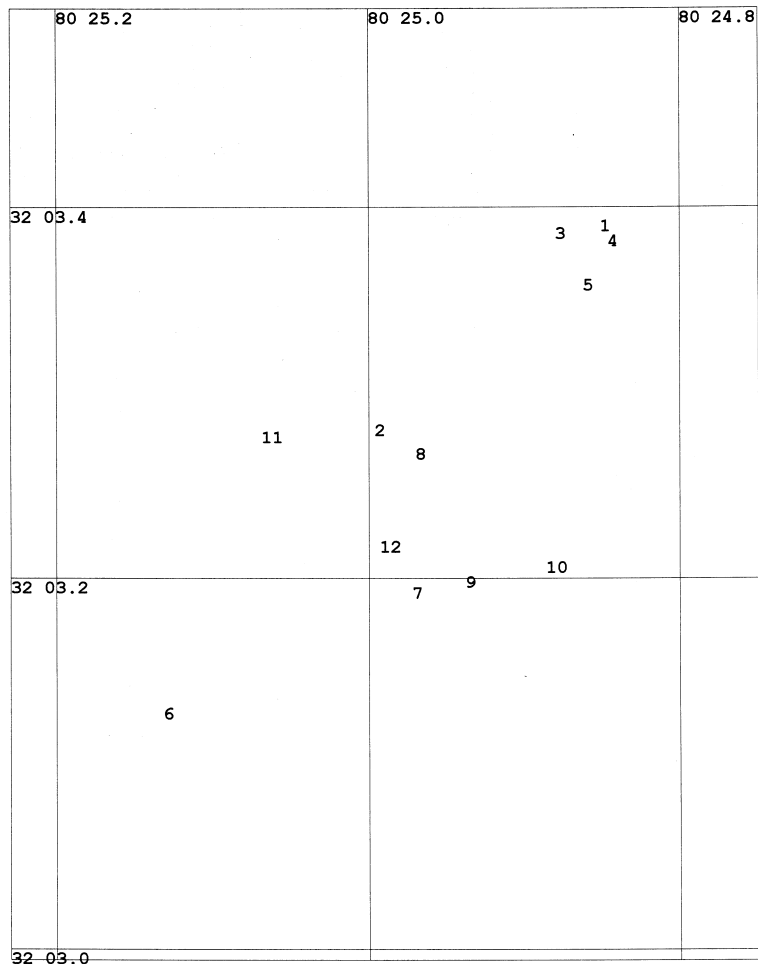
Reef	Structure	Latitude	Longitude
		N	W
	1) NE Reef Buoy	32 18.900	080 42.358
	2) NW Reef Buoy	32 18.900	080 42.608
	3) SE Reef Buoy	32 18.716	080 42.358
	4) SW Reef Buoy	32 18.717	080 42.608
Parris Island Reef	5) 40' Deck barge	32 18.868	080 42.537
	6) 50' Landing craft	32 18.975	080 42.525
	7) Concrete rubble	32 18.858	080 42.498
	8) Concrete rubble	32 18.897	080 42.535
	9) Broad River Bridge rubble	32 18.866	080 42.403
	10) Broad River Bridge rubble	32 18.826	080 42.465
	11) Broad River Bridge rubble	32 18.736	080 42.488
	12) Broad River Bridge rubble	32 18.721	080 42.403



PA-44

1 buoy marks reef, bearing 105° / 8.4 nm from Port Royal sea buoy 'P' - water depth 90'

Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 03.427	080 24.851
Betsy Ross Reef	2) 430' Liberty ship (Betsy Ross)	32 03.285	080 24.996
	3) Bridge section	32 03.391	080 24.880
	4) Bridge section	32 03.387	080 24.846
	5) Bridge section	32 03.363	080 24.862
	6) 175' Ship (YO-224)	32 03.142	080 25.132
	7) NYC Subway cars	32 03.197	080 24.972
	8) NYC Subway cars	32 03.272	080 24.970
	9) NYC Subway cars	32 03.203	080 24.938
	10) NYC Subway cars	32 03.211	080 24.886
	11) NYC Subway cars	32 03.281	080 25.069
	12) NYC Subway cars	32 03.222	080 24.993



PA-45

1 buoy marks reef, bearing 249° / 5 nm from Port Royal channel buoy '15' - water depth 9'

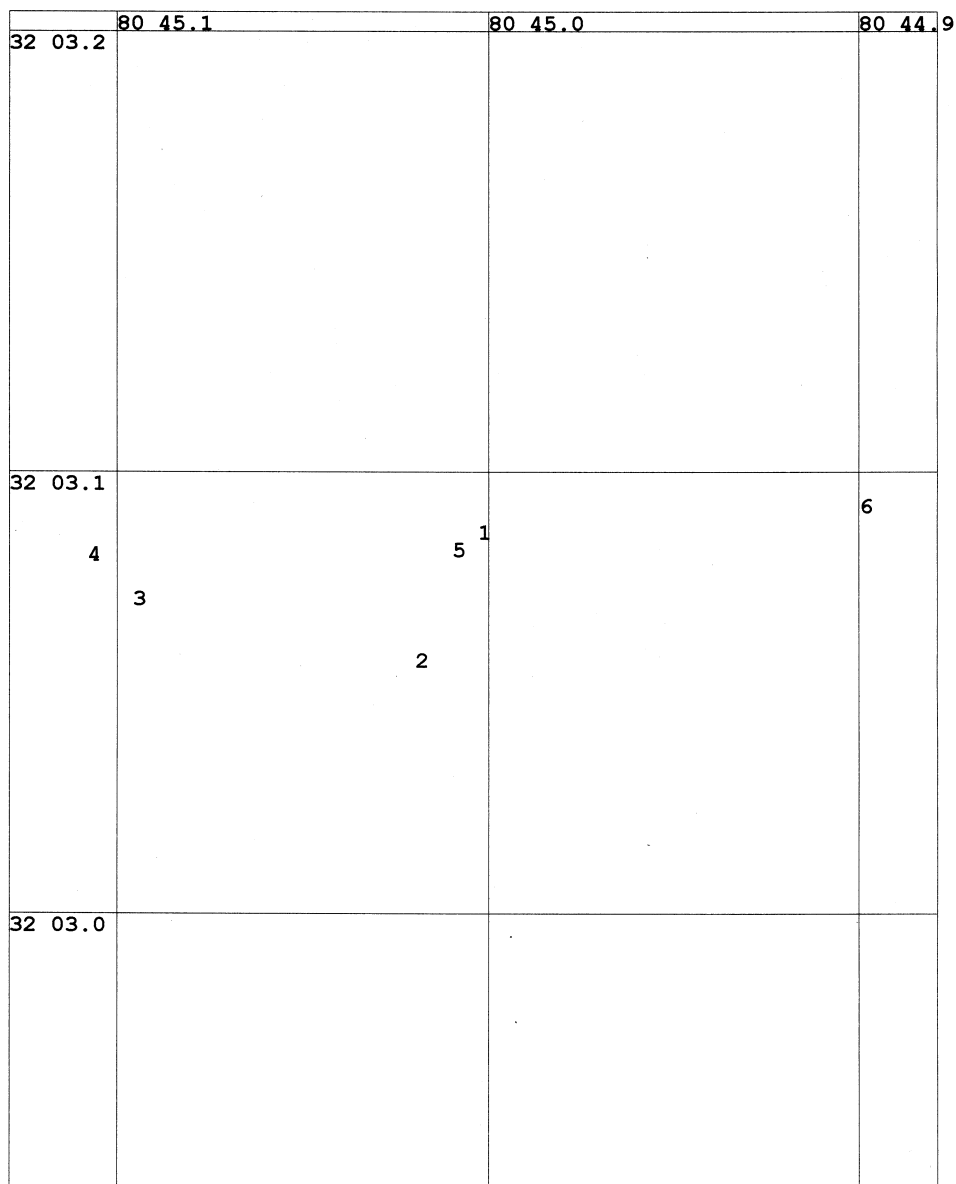
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 08.449	080 41.439
Fish America Reef	2) Concrete Reef Balls	32 08.357	080 41.424
	3) Concrete Reef Balls	32 08.380	080 41.414
	4) Concrete Zs	32 08.000	080 41.350
	5) Concrete culvert pipe	32 08.010	080 41.098
	6) Broad River Bridge rubble	32 08.000	080 41.000

	80 41.6	80 41.4	80 41.2	80 41.0
32	08.6			
		1		
32	08.4	3		
		2		
32	08.2			
32	08.0	4	5	6
32	07.8			

PA-47

1 buoy marks reef, bearing 255° / 8.5 nm from Port Royal sea buoy 'P' - water depth 30'

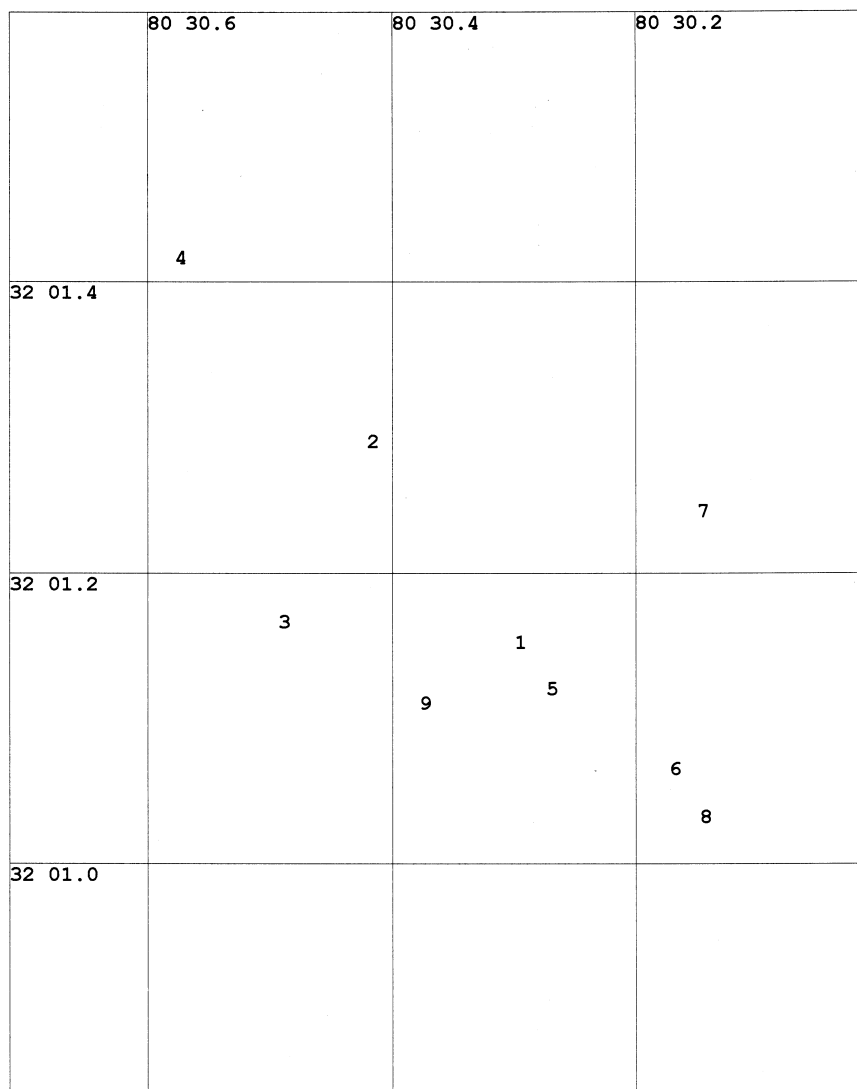
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 03.089	080 45.003
White Water Reef	2) 60' Lash barge	32 03.060	080 45.020
	3) Army tanks and APCs	32 03.074	080 45.096
	4) Army tanks and APCs	32 03.084	080 45.108
	5) Concrete Zs	32 03.085	080 45.010
	6) 20 Shipping containers	32 03.095	080 44.900



PA-48

1 buoy marks reef, bearing 133° / 5.5 nm from Port Royal sea buoy 'P' - water depth 70'

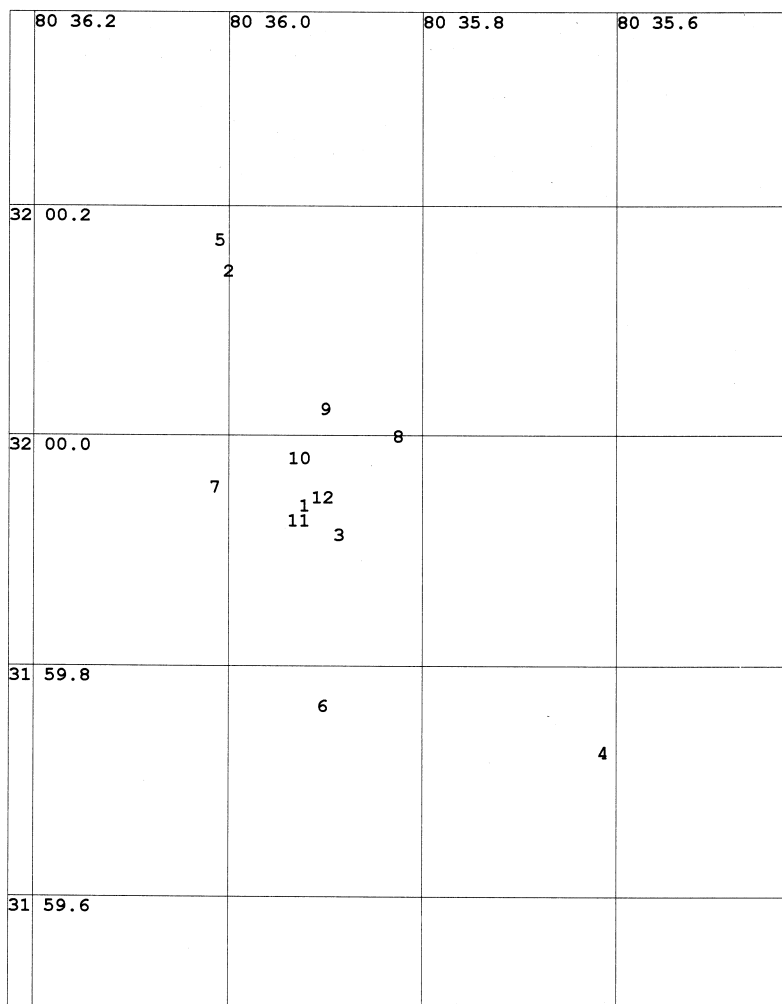
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	32 01.160	080 30.300
Eagle's Nest Reef	2) 65' Tugboat	32 01.298	080 30.421
	3) 115' Landing craft	32 01.174	080 30.494
	4) 115' Landing craft	32 01.424	080 30.578
	5) 150 TIC units	32 01.128	080 30.274
	6) Tanks and/or APCs	32 01.250	080 30.150
	7) Tanks and/or APCs	32 01.090	080 30.172
	8) Tanks and/or APCs	32 01.073	080 30.173
	9) 80' Deck Barge	32 01.118	080 30.378



PA-49

1 buoy marks reef, bearing 195° / 5 nm from Port Royal sea buoy 'P' - water depth 50'

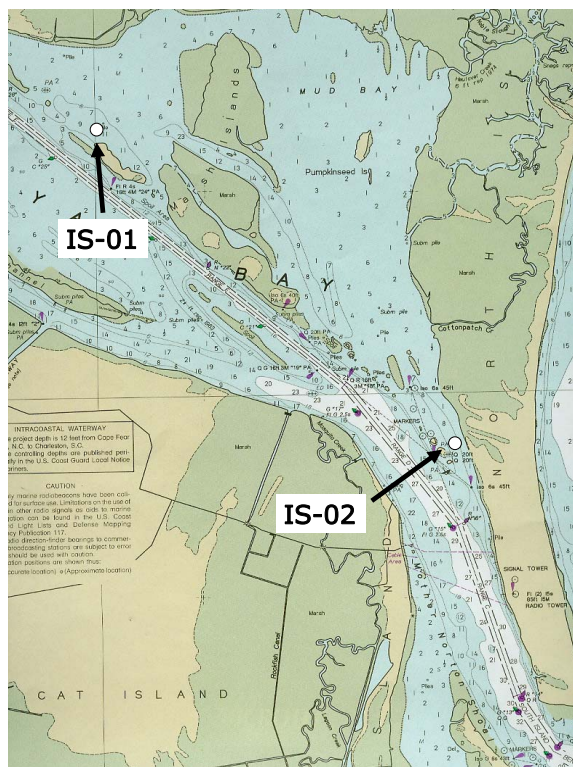
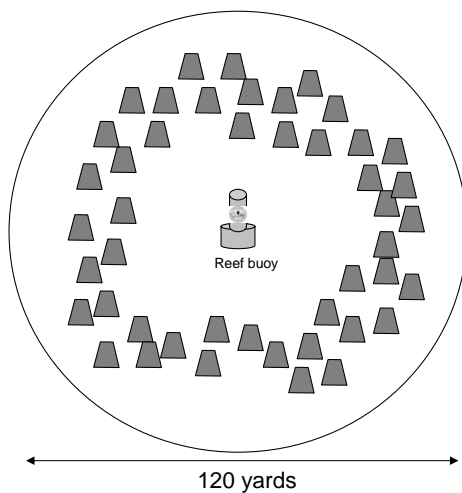
Reef	Structure	Latitude	Longitude
		N	W
	1) Reef Buoy	31 59.948	080 35.928
Hilton Head Reef	2) 35' Navy boat	32 00.152	080 36.006
	3) 200' Deck barge	31 59.923	080 35.892
	4) 50' Deck barge	31 59.734	080 35.619
	5) 100' Deck barge + tires	32 00.179	080 36.015
	6) Concrete reef balls	31 59.774	080 35.909
	7) Concrete reef balls	31 59.964	080 36.020
	8) Army tanks and APCs	32 00.008	080 35.831
	9) Army tanks and APCs	32 00.032	080 35.906
	10) Army tanks and APCs	31 59.989	080 35.939
	11) Concrete Zs	31 59.935	080 35.940
	12) 20 Shipping containers	31 59.955	080 35.915



IS-01, IS-02

1 buoy marks each reef - water depth at each site 10'

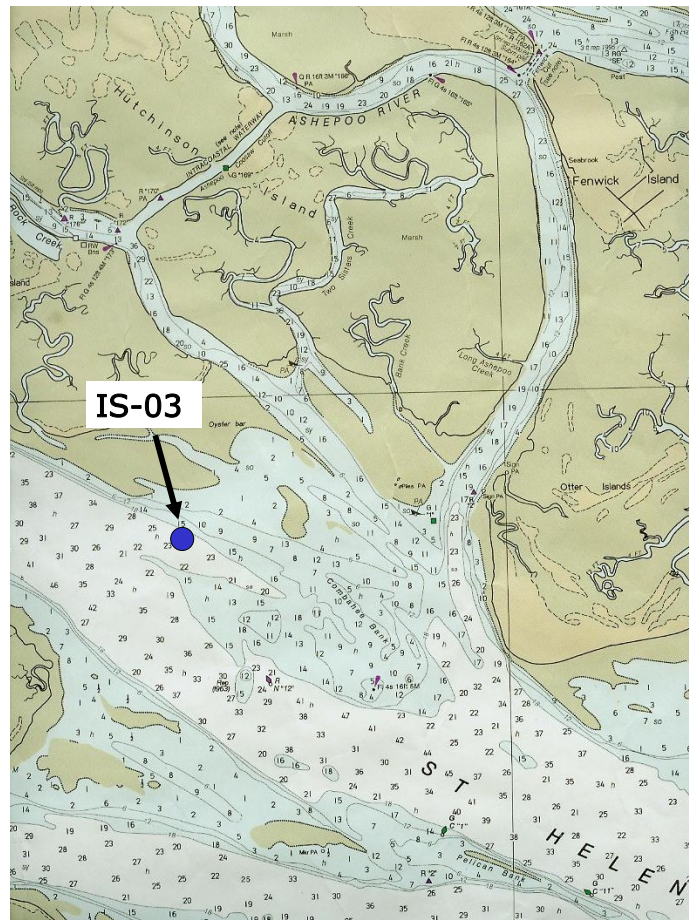
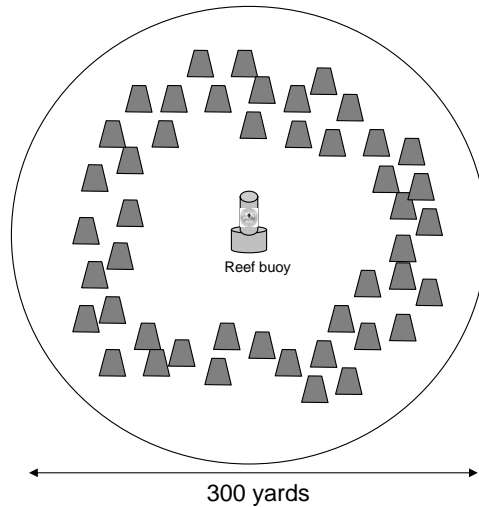
Reef	Structure	Latitude N	Longitude W
Upper Winyah Bay Inshore Reef	Reef Buoy 120 Concrete structures	33 17.125	079 14.975
Lower Winyah Bay Inshore Reef	Reef Buoy 120 Concrete structures	33 14.552	079 11.695



IS-03

1 buoy marks reef, bearing 332° / 1.1 nm from St. Helena Sound channel buoy N"12" - water depth 22'

Reef	Structure	Latitude	Longitude
		N	W
St. Helena Sound Inshore Reef	Reef Buoy 200 Concrete structures	32 29.052	080 27.490



IS-04

2 buoys mark reef, located 800 yards downstream from Stono River channel marker R"6" - water depth 26'

Reef	Structure	Latitude	Longitude
		N	W
Stono River Inshore Reef	280 Concrete structures	32 40.417	080 00.022

